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Vol 2



The Province of Alberta

PETROLEUM AND NATURAL GAS CONSERVATION BOARD

Application for Permission to Remove or cause to be removed
Natural Gas from the Province of Alberta, under the Provisions of the
Gas Resources Preservation Act by Prairie Pipe Lines Limited.

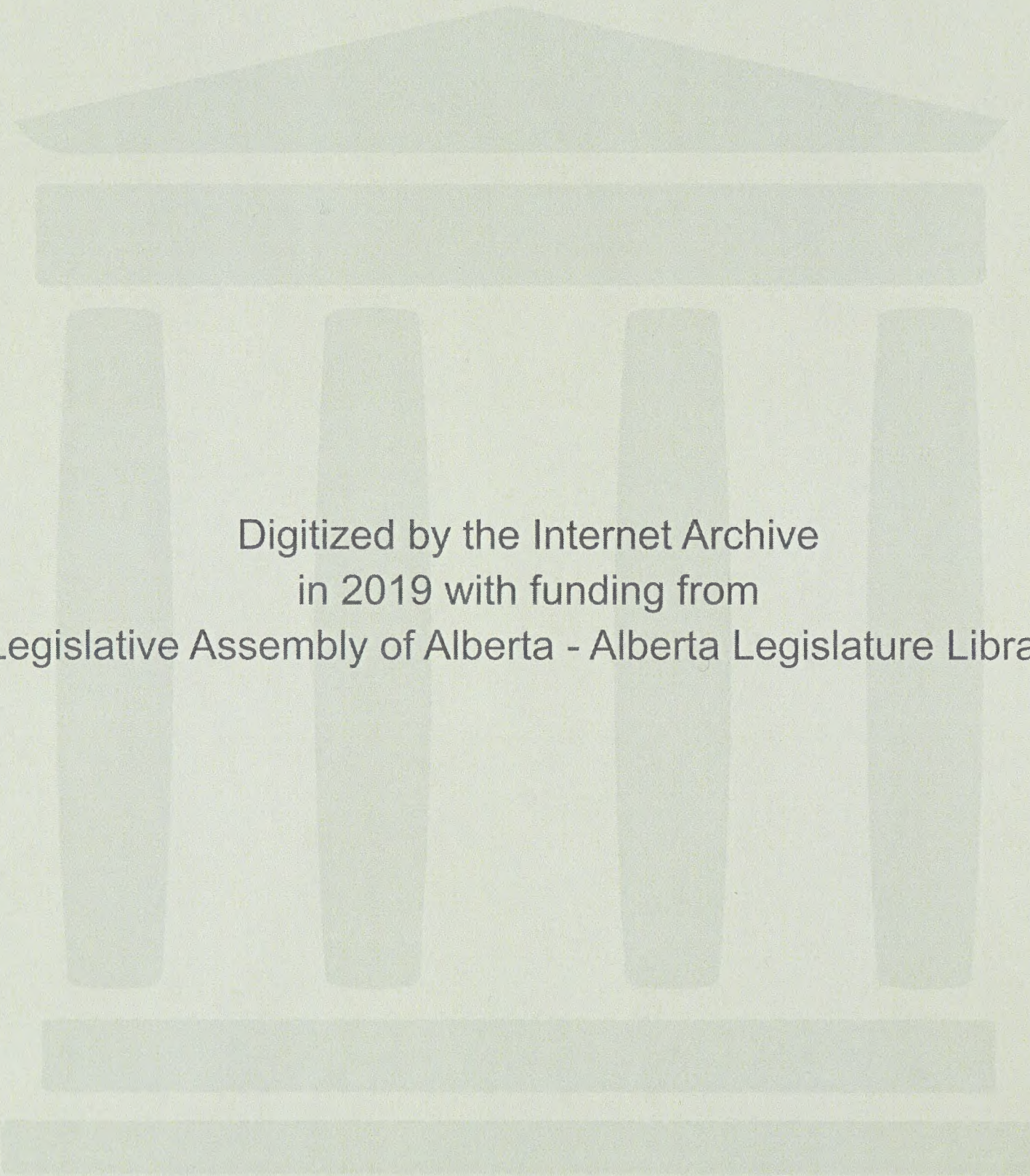
I. N. McKinnon Esq., Chairman

D. P. Goodall Esq.

Dr. G. W. Govier

Session: OCTOBER 11th, 1950.

Volume 2



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. I N D E X

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MR. S. B. SMITH: I think, sirs, in accordance with your directions yesterday that the proper procedure for us is to make Mr. Herring available first now for cross-examination. I mean Mr. Fish, I am sorry, for cross-examination by such parties, if any, who desire to cross-examine him. Mr. Fish.

THE CHAIRMAN: Mr. McDonald?

MR. McDONALD: Yes, Mr. Chairman. Are you finished, Mr. Smith?

MR. SMITH: Yes, go ahead, Mr. McDonald.

.....

RAY C. FISH, recalled, already sworn, cross-examined by Mr. McDonald, testified as follows:-

Q Mr. Fish, I just wanted you to clarify one or two points for me in your exhibit. I have forgotten the number of it at the moment.

MR. C. E. SMITH: Exhibit 1.

Q MR. McDONALD: Exhibit 1. You can turn to Page 3, Mr. Fish?

A Yes.

Q In the third paragraph you refer to 350,000 MCF per day with a total requirement of approximately 450,000 MCF per day at the end of the first five years of load growth. Now, are those figures the average day or are they the maximum day figures?

A I am just trying to remember. I do not happen to have those particular exhibits before me but I believe they are the

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MR. C. E. SMITH: I think, sir, in connection

with your statement yesterday that the proper procedure

for us is to have Mr. McGowan available to us for

cross-examination. I mean Mr. McGowan, I am sorry, for

cross-examination by such parties, I am, who desire to cross-

examine him. Mr. Fish

MR. CHAIRMAN: Yes, Mr. McGowan.

MR. McDONALD: Yes, Mr. McGowan.

MR. SMITH: Yes, Mr. McGowan.

.....

.....

MR. C. E. SMITH: Yes, Mr. McGowan.

sworn, cross-examination by Mr. McGowan, testified as follows:

Q Mr. Fish, I have waited for you to clarify one or two points for

me in your exhibit. I have forgotten the number of it is

the moment.

MR. C. E. SMITH: Exhibit 1.

MR. McDONALD: Exhibit 1. You had him to exhibit

MR. FISH: Yes.

Q In the third paragraph you refer to \$50,000 but you say

with a total requirement of approximately \$25,000 for the day

at the end of the first five years of 1924, 1925, 1926, 1927,

and these figures are average for the first five years?

MR. FISH: Yes.

Q I am just trying to remember. I am not trying to say that

particular figures before me but I believe they are the

Ray C. Fish,
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average day. If I might be permitted to ask Mr. Herring?

Q Yes?

A Bob, is that not correct?

MR. HERRING: That is correct.

THE WITNESS: That is our average day?

MR. HERRING: Yes.

Q MR. McDONALD: On Page 4, at the end of the third paragraph, you have the initial requirements of the Eastern market area as 225,000 MCF per day. Is that an average day figure again?

A That is an average day figure and even that is too low. We are going to submit exhibits this morning, Mr. Herring will submit them, I believe, and they will show that the average day will be around 240,000 some per day.

Q And then if you will turn to Page 5, at the end of the third paragraph again, the last sentence, you refer to surplus gas in the Province of approximately 1 trillion cubic feet which will permit a daily delivery of 100,000 MCF per day. Now, on Page 6, in the second paragraph, you refer to an immediate surplus now estimated to approximate 2 trillion cubic feet. I am just wondering if you are referring to the same surplus?

A Sir, if you will read that, Prairie requests.... You must go to that second paragraph on Page 6. I believe if you will read it it is quite clear.

Q Yes?

A Prairie requests that they be granted an export permit to deliver the immediate surplus, which is referred to back on Page 5, of 1 trillion cubic feet, to meet the requirements of the Province of British Columbia, and that as soon as

Mr. J. H. ...
Mr. J. H. ...

... It is ...

Yes?

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Yes?

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the semi-proven, the probable or semi-proven reserves,
now estimated to approximate 2 trillion cubic feet.....

Q Yes?

Aas soon as those other reserves are developed and
made deliverable, that in turn the Commission or the Board
will also permit us to export that, or transport it, not
export it, to the Eastern Canadian Provinces.

Q Yes?

A Now, clarifying that even farther. From the geological
study that Prairie has had made, testimonial of which
will be submitted, I believe, this morning, or during this
hearing, we will show that at the present time in our
opinion there are proven reserves of approximately 5
trillion. And when I use the words "5 trillion", I
believe the geologist comes up with 4.6 or 4.7 or something
like that, but I believe it is in the vicinity of 5 trillion.
And on that basis, with our requirement of 3.9 trillion
cubic feet, that will leave approximately 1 trillion cubic
feet, which is sufficient to support the withdrawal of
100 million cubic feet as that will, in seven years, be
roughly 700,000 billion cubic feet.

Q Yes?

A In addition, our geologists will submit testimony that there
are a great number of other producing areas, that they have
not, or that he has not even taken into account in his
report.

Q Yes?

A There are some 30 other areas in which there are over some
50 wells drilled that have potential possibilities, along
with, I believe, the name of the place is Morinville, that

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has an immediate probable supply of around 2 trillion,
but again that is wildcat stuff.

MR. C. E. SMITH: You will be glad yourself to hear
part of that, Mr. McDonald.

Q MR. McDONALD: Yes?

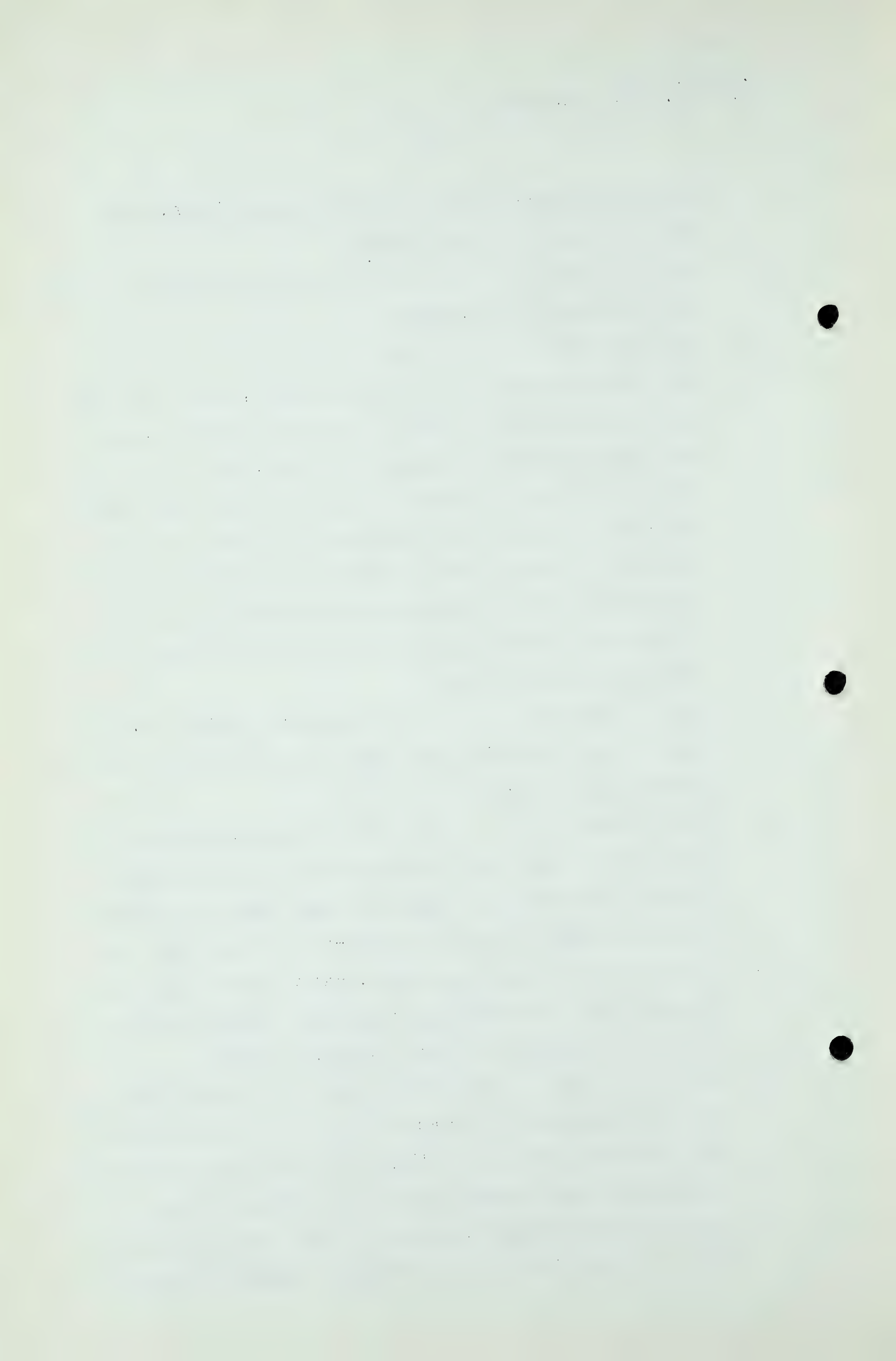
A The over-all picture that we are talking about, and I will
digress for a minute, taking it from our general survey,
and drawing a parallel to the Gulf Coast area, we are quite
convinced whenever a market is opened up that this Province
will have an excess of 10 trillion cubic feet. And I am
optimistic enough to believe that it is in the realm of
possibility that in the next ten or fifteen years this
Province will develop 20 or 30 trillion cubic feet. It has
tremendous possibilities.

MR. C. E. SMITH: It will soon be a grand slam bid.

A There is one thing that will make that possible and that is
a market for the gas.

Q MR. McDONALD: Mr. Fish, summing up what you have
said, there is one trillion proven that you are relying
upon for your immediate demand and when you get a further
2 trillion established out of this semi-proven, then you
have a total of 3 trillion cubic feet, and you think that
is sufficient to satisfy your immediate demand and also
provide a surplus for export to Eastern Canada?

A Yes, sir, we do. And we would like, even at this hearing,
for the Commission to consider as part of our request, not
only for 100 million, but that they also seriously consider
including in that permit, if they so decide to issue it,
that as soon as that is proven up, that we be permitted
to go ahead and take it to the Eastern Canadian Provinces,



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thereby taking Canadian gas to Canadian markets.

Q Now, you use the word "transport". Do I understand you rightly that this gas will be actually physically transported to Eastern Canada? Or is there a question of trading gas as between other sources of supply?

A For all general purposes and the purposes of complying with, I would say, the Governmental requirements of Alberta and the United States, the gas would be substantially taken in bond from the Idaho-Canadian border and delivered in bond at the United States-Ontario border.

Q Yes? Actually what would you do?

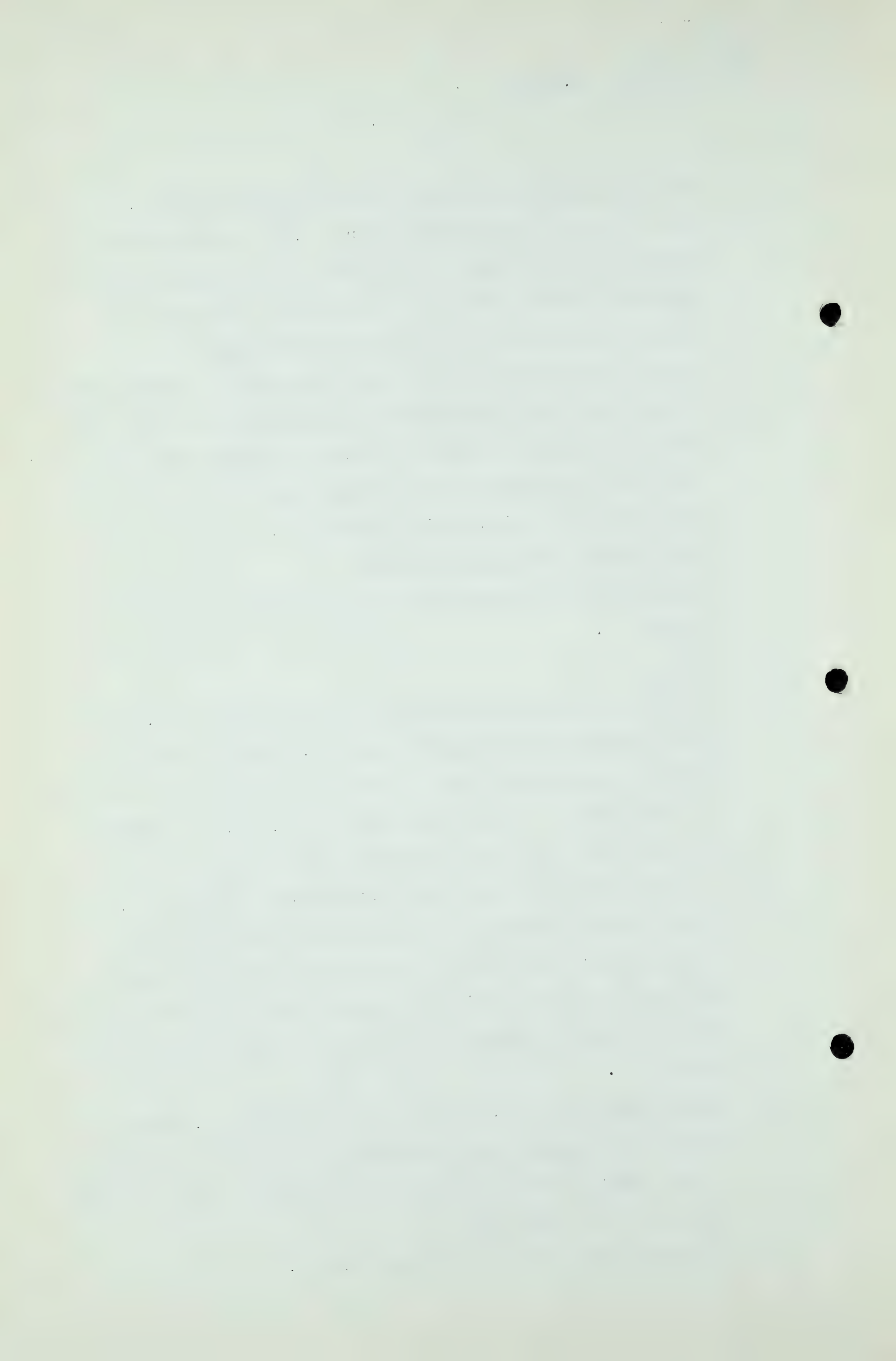
A We would divert Canadian gas to the Pacific Northwest market.

Q Yes?

A We would divert Texas gas to the Ontario market. We would have a reciprocal exchange of gas. In other words, the Canadian gas and the Texas gas would go into one big jug and we would take it out of that big jug. We would eliminate the objections that are presently being encountered, not only by our United States gas transmission systems, but by your Canadian utilities' systems in Eastern Canada in endeavouring to get United States gas to Canadian markets. This way we would simply put Canadian gas to Canadian markets, and that should eliminate all of the problems of export and import.

Q Now, I understand, as you mentioned, I think, yesterday, there is an exhibit that you intend to file, a description of the route, estimate of construction costs of the Canadian portion of the pipe line?

A I believe that has been filed, sir.



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Q It has not been given an exhibit number though.

THE CHAIRMAN: No, it has not.

MR. McDONALD: I do not know whether it has been distributed to other parties.

MR. S. B. SMITH: I believe it has been distributed to all the other parties. We have additional copies here if any Counsel has not received any of them. We will be glad to supply them now if that is so.

MR. NOLAN: May I be made clear as to what exhibit we are referring to?

MR. S. B. SMITH: It has not been marked, Mr. Nolan.

MR. NOLAN: Is it the one that has been prepared by Mr. Biddison and Mr. Eggerstedt?

MR. S. B. SMITH: That is correct.

MR. NOLAN: Are either of those gentlemen going to be here?

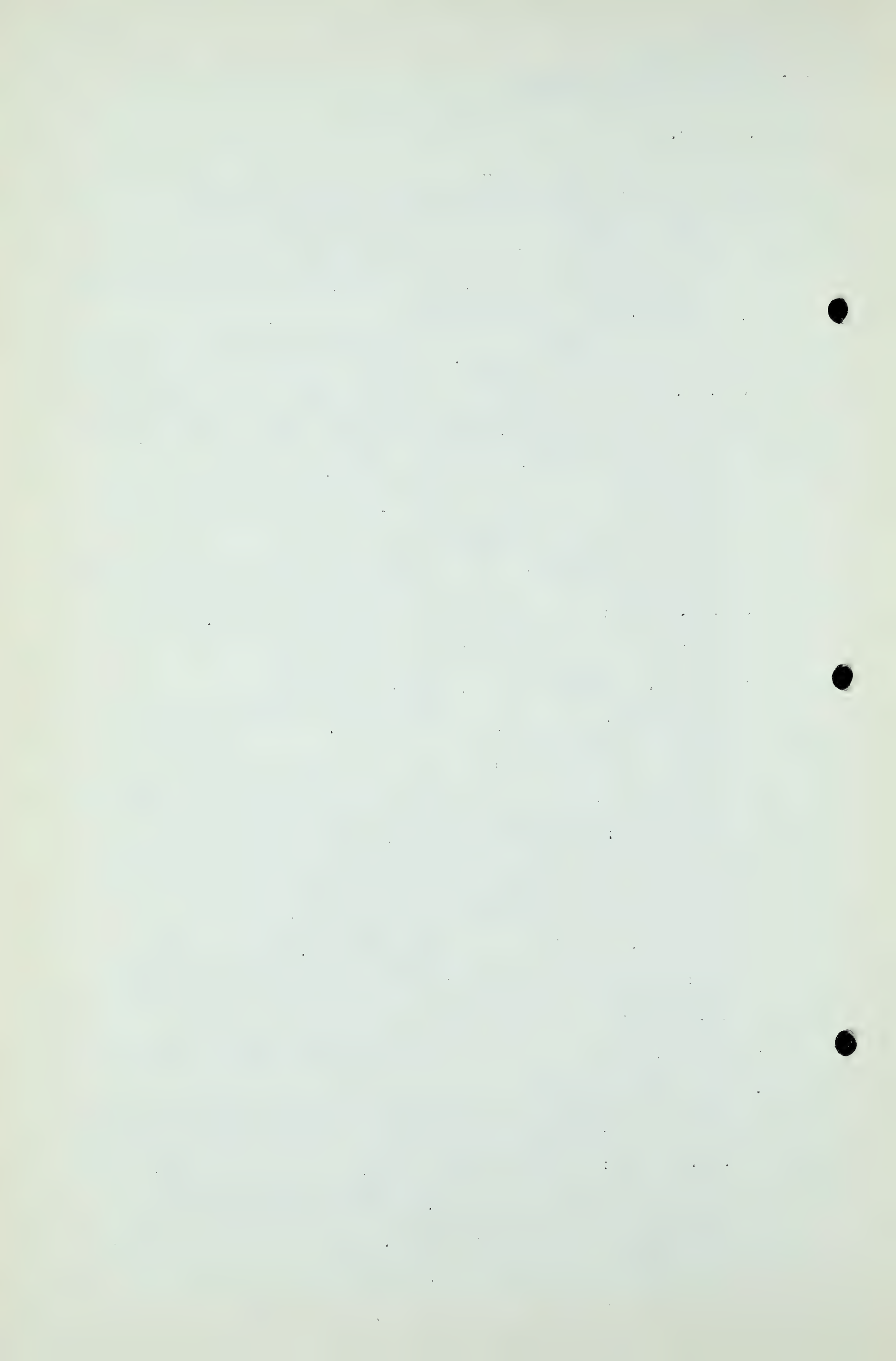
MR. S. B. SMITH: Well, sirs, I stated the position of the Company yesterday in that regard in my opening. I will gladly re-state it if it is not clear. I think I made it quite clear in my opening statement.

MR. NOLAN: That they will not be here?

MR. S. B. SMITH: If you will like me to, I will re-state it.

MR. NOLAN: I am trying to avoid retarding the proceedings.

MR. S. B. SMITH: We will retard them long enough so that I can repeat what I said. I will read again what I said yesterday from the transcript. Excuse me just a minute while I get my transcript. This is what I said yesterday. I think it is quite clear.



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" We also have evidence available as to the proposed financial and banking arrangements in connection with the plans of these companies. It is possible that as our application proceeds we may decide to call additional witnesses; extensive surveys of routes have been made by engineers for these companies and the results of such surveys and the computations of the engineers based upon such surveys have already been filed with this Board. The engineers who did this work are available but as these matters are, in our idea, collateral rather than prime questions before this Board, our present and tentative plans are not to call these engineers as witnesses.

Mr. Fish, who has had wide experience in the actual construction of gas transmission systems and is familiar with general cost figures, has consulted with these engineers and is qualified to give evidence upon all phases of the proposed construction if desired by the Board."

I do suggest, with respect, sirs, that the statement I made is quite clear. I am glad to repeat it for Mr. Nolan.

MR. NOLAN: It is perfectly clear to me, but it is also quite clear to me that the procedure of this Board has always been that evidence in the form of submissions had to be supported by oral testimony. In other words, we have not been handing in written submissions of any kind, we have been calling witnesses, and through those witnesses the evidence has been adduced. I see no reason at this

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stage to change that procedure. And, for my part, I am going to object to this document being put in unless it is through a witness.

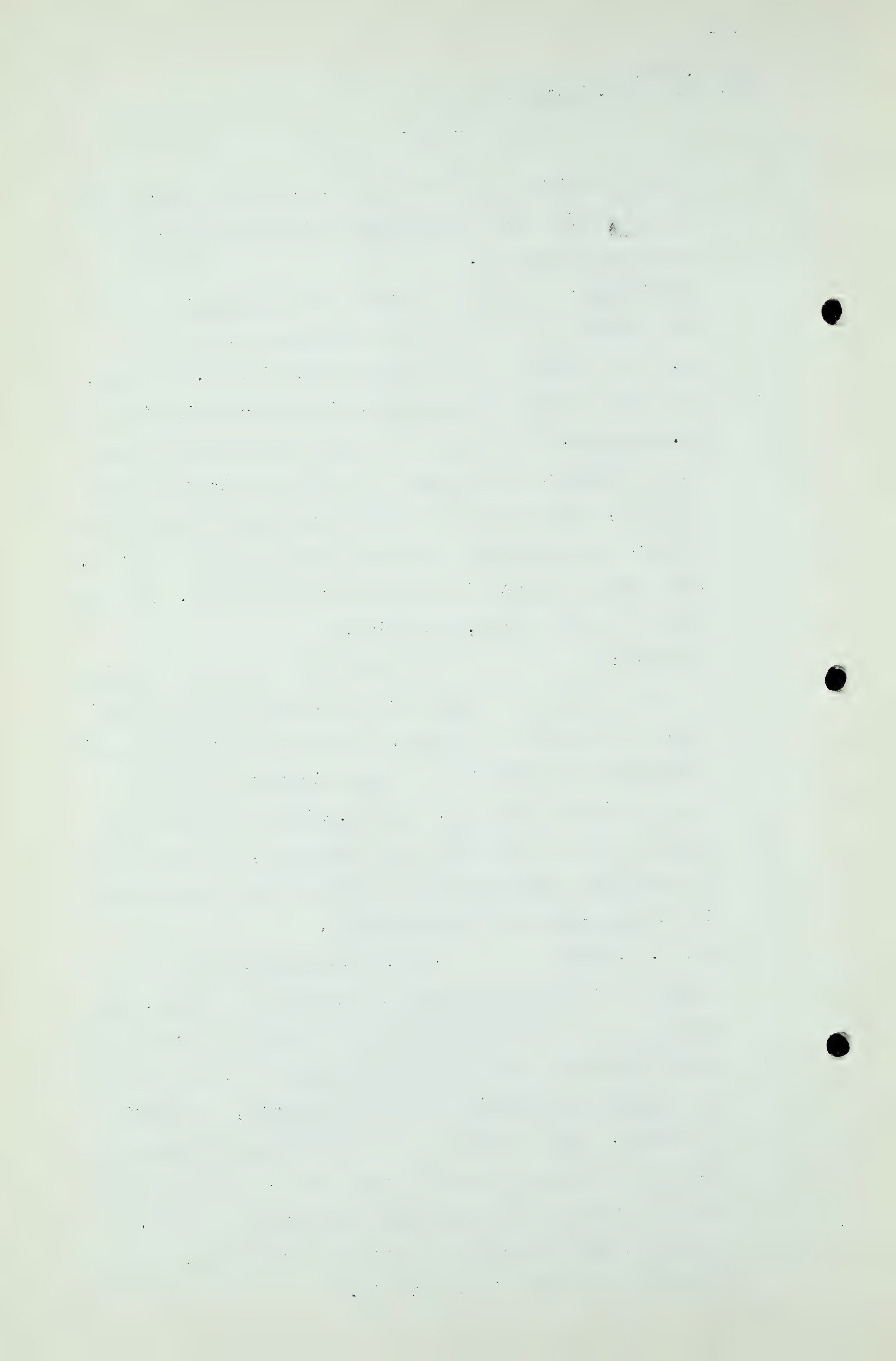
THE WITNESS: Might I add something?

THE CHAIRMAN: Just a minute, Mr. Fish.

MR. C. E. SMITH: Might I say, this, Mr. Chairman, this whole thing has been raised in cross-examination by Mr. McDonald. If he wants to refer the witness to some piece of paper, let us mark it as Exhibit "A" for identification, and then he can ask him the question and get the answer. In that way it does not become evidence. If Mr. Smith wants to prove it later, he can put it in. Is there any objection to that, Mr. Nolan?

MR. NOLAN: It seems to me that we are going to have to put in evidence properly, and to do that they should be marked as exhibits. I never understood what it meant to mark documents for identification because it leaves things in the air. If Mr. Smith is not going to support this document with oral testimony, it seems to me it should be excluded and no reference should be made to it in cross-examination or otherwise.

MR. C. E. SMITH: Well, Mr. Chairman, later on I intend to refer to something that is not an exhibit, and may not be put in, and I am going to insist or try to insist, that I have the privilege of referring to it, and I refer to the original application, to be quite frank, of Pacific Northwest. That is not in as an exhibit and I intend to have some questions about it, and I do not know how it can be marked in any other way except as an exhibit. I think Mr. McDonald can ask about the documents, and we do not need to make it an exhibit.



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MR. NOLAN: As far as the applications themselves are concerned, they are in a very different position than documents of this kind which contain a certain amount of factual evidence and opinion evidence, but I am objecting to this on the ground that the procedure which has been followed throughout the whole course of this Inquiry is that if documents are to be permitted to be put in that they be put in evidence through witnesses, and I do not think that we should permit documents to be put in without the witnesses being present and an opportunity be given to Counsel to cross-examine, if they so desire.

THE CHAIRMAN: I think, Mr. Nolan, as far as the document itself is concerned, the Board will allow it to go in as an exhibit now, but we will certainly give consideration to what you have said in giving any weight or consideration to the document. We will mark the document as Exhibit Number 7.

BRIEF RE CANADIAN PORTIONS OF PIPE
LINE, DESCRIPTION OF ROUTE AND ESTI-
MATE OF CONSTRUCTION COSTS MARKED
EXHIBIT 7.

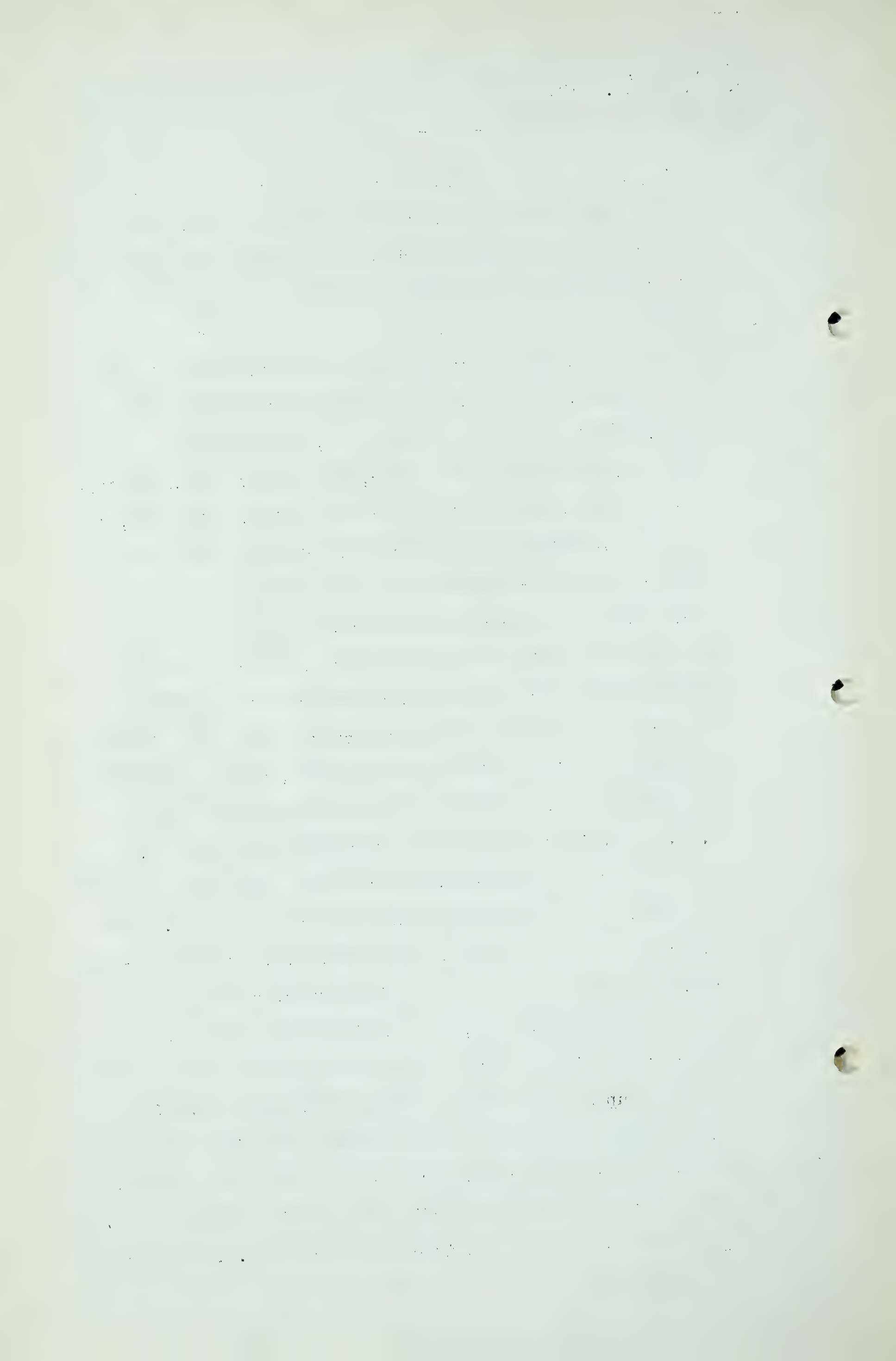
- Q MR. McDONALD: Now, Mr. Fish, my question with reference to Exhibit 7 is simply this, on reading it I do not find any reference to a gas line or service to Vancouver Island, or the immediate vicinity of the City of Victoria?
- A You mean the Victoria Island, don't you?
- Q Vancouver Island on which the City of Victoria is situated?
- A Oh, I see.
- Q Is that right?
- A That is right.
- Q And I was just going to ask you this question if the engin-

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eering work has been completed on that particular part of your project, can you now give us in round figures the cost of it and briefly the method on which the line is to be built?

4. Briefly the story on delivery of gas to Victoria on Vancouver Island is that we have made a complete detailed survey of it. In fact, I have had my own aeroplane up there, and flew over it a few times, and we went over it on boats, we looked it all over, and we have detailed maps of all the waterways, tides and everything. Further, we employed Captain Abrahamson who had charge of laying the lines across the English Channel during the last World War, and the lines are still there. I think he laid the lines off the tail end of an old Swedish whaling boat. We have gone over the ground, and there have been charts prepared in detail, and we have arrived at the conclusion that the line is feasible and practical, and we are prepared to lay it, and we have had negotiations with the B. C. Electric Company that we will put the line in, but that gas would cost more, the cost of that line will be higher than at Vancouver or the other market areas. It naturally would cost more, the gas would, over on Vancouver Island, than it would at Vancouver, because of the cost of the line. Now, the exact details of that, I did not have in mind, we had no idea of bringing that up, bringing up such minor details before this Board. We were prepared to show that we would build that line and that the cost across there is more than laying a normal line. It is slightly more than ordinary pipe line construction. We are prepared to build it either for the B.C. Electric



Ray C. Fish,
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Company or Pacific Northwest will build it, and for that portion of the service we will naturally have to amortize the line.

Q Yes?

A But we have made a complete study of it. I am prepared to say that we will build it, that it is feasible, and that I think is a matter of negotiation between us and the market. If the market is willing to pay a few cents more, pay a few cents over what it would cost at Vancouver, and the other market areas, we will put the line in, and if we can amortize that section of the line, then we are ready to go ahead with it.

Q Yes?

A Now, the details of the cost of it, as far as this other portion of our pipe line system is concerned, it represents under 10% of it, of the total cost, and I have gone over in detail with Mr. Biddison and Mr. Eggerstedt with regard to it. I also had Mr. McKay, who is an expert on it, as Mr. Bill Poor, your engineer knows. He has gone over this whole system, and gone over the section of the line from Pincher Creek to the main line.

Q Yes?

A We have gone over it. These figures are substantially correct, although they are an estimate.

(Go to Page 83)

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- Q I was not examining you with regard to Exhibit 7 at all but I was wanting to have this additional engineering data on the record and in view of the fact that you have it included in your Market Survey - -
- A Yes, we have made a complete study of it.
- Q Now, there is just another point, Mr. Fish, and that was the matter of the load factor on your line. Do I gather that your load factor is estimated to be 85%?
- A Approximately.
- Q Yes?
- A We estimate after developing the storage reservoir that we plan to develop, and we have investigated that matter quite thoroughly near Hanford, that by taking in quantities of gas, interruptible gas, and taking off firm gas, we can operate at a rate of about 85%. Now we have not done this
- Q second hand. We, Fish Engineering Corporation, have made direct contact with 1100 industries. We know what those industries will do. We know whether they will be on an interruptible or a firm basis. From the total compilation of the answers to our questionnaire we know and are sure by our estimate that it will at least operate at a rate of 85%.
- Q That I understand is predicated on the storage reservoir that you have in mind?
- A That is part of the over-all picture. On the other hand, its contribution is minor. We could do without the reservoir but the reservoir makes it easier, but we could keep on higher than that.
- Q I think your words were "in excess of 85%."

Ray C. Fish,
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Cr. Ex. by Mr. Mahaffy.

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A All right, I will make that my statement.

Q And if no storage is possible the difference will be very minor?

A Yes. We will sell it as interruptible gas. But again, it being in the middle of two or three major pipe lines of the United States, it is easy enough to operate at a high load factor if you have enough money.

Q Can you tell me this in regard to that storage reservoir near Hanford, has that area produced gas in any quantity?

A Not in any quantity. It did produce some gas, but the main thing was there was a void spot down there, but as far as the storage reservoir is concerned that is not of too much importance. The Transcontinental is now shooting and making geological studies of reservoir conditions in South Jersey that we are planning on using. That is full of water now but we will push out the water. If there is a hole underground with a porous formation we can poke gas into it.

CROSS-EXAMINATION BY MR. MAHAFFY:

Q I would like to ask Mr. Fish a few questions. Mr. Fish, in your Exhibit 1 which you read to the Board yesterday, you mentioned two Prairie companies, Prairie Pipe Lines Ltd. and Prairie Transmission Lines Ltd. What is the object of those two companies and what is the nature of them?

A I know we own, that is Pacific Northwest does, and I am President of both of them - as I understand - and that is before my time - but as I remember it, Prairie Pipe Lines Ltd. is an Alberta Province Corporation and that corporation

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filed an application before the Board. Then Prairie needed a Dominion Company in order to get an export permit, so that in turn it formed Prairie Transmission Lines Ltd. as a Dominion company. So there are two companies. Prairie Pipe Lines Limited, as I remember it, owns Prairie Transmission Lines Ltd. and now Pacific Northwest Pipe Line Corporation owns both of those companies.

Q Are the two companies going to do practically the same thing or have they different functions to perform, do you know?

A We have not arrived at our final conclusion of what we will do. Prairie Transmission Lines Ltd. will be the main company that will operate the transmission lines.

Q The export lines?

A Yes, from Alberta, if we are given an export permit, to the junction with the Pacific Northwest. Now Prairie Pipe Lines Ltd. might be utilized for some other purpose. It is a corporation that is available if and when we need it.

Q What other purpose might it be used for?

A I would not know offhand. We could use it to operate a grid system up here but we do not contemplate it. It is an Alberta Province corporation. In other words, we inherited two Prairie companies, and I think there was justification for the two in the first instance.

Q The first paragraph says:

"Prairie Pipe Lines Limited submits the following statement in support of its application before the Petroleum and Natural Gas Conservation Board of Alberta for the export of natural gas."

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- A Yes, sir, and to clarify myself, I am not a lawyer, I am just an engineer.
- Q You seem to be doing all right.
- A My lawyer probably could explain it. I believe our case is still pending before this Board in the name of Prairie Pipe Lines Limited. Also included in the application - I do not happen to have a copy of it - I think it is set out in it that they also own Prairie Transmission Lines Ltd. and the amended application that was filed - let me get the date - just recently by Pacific Northwest in September, we made both companies part of this.
- Q So Prairie Pipe Lines Limited, being a Provincial company, might operate a grid system or a gathering system or do some purely provincial operation, is that it?
- A If necessary. In other words, looking down the road here, as, with all pipe lines, we like to look 10, 15 or 20 years, and I can see where, with the local utilities, we might want to get together on the basis of continuing the system for the benefit of both. If we do then there is the local company that will fit in nicely.
- Q Do you think you have to look 15 years ahead for some such system?
- A On our over-all projection of one of these pipe lines - and I have been connected with two or three of the major ones, we try to look ahead at least 20 years.
- Q Do you think it is going to be 15 years before the local systems are going to be interested in your local pipe line set-up?
- A No, I think it is a matter of increment growth over the

Ray C. Fish,
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next five years.

Q You feel you have a provincial company to carry out a scheme which probably will be needed to tie in the local systems with some of these other fields that we are interested in?

A I would rather put it this way, that instead of inheriting one company we acquired two companies and I do not see any reason to dissolve that other company. I think rather we should have it available to meet any contingency that comes up down the road. We must, I believe, in crossing the boundary like we do, going through the Crows' Nest Pass, have a Dominion company. A Provincial company, as I understand it, will not get the job done. Therefore we need a Dominion company with a Dominion charter. We have to go before the Board of Transport Commissioners, and an Alberta company would not do it.

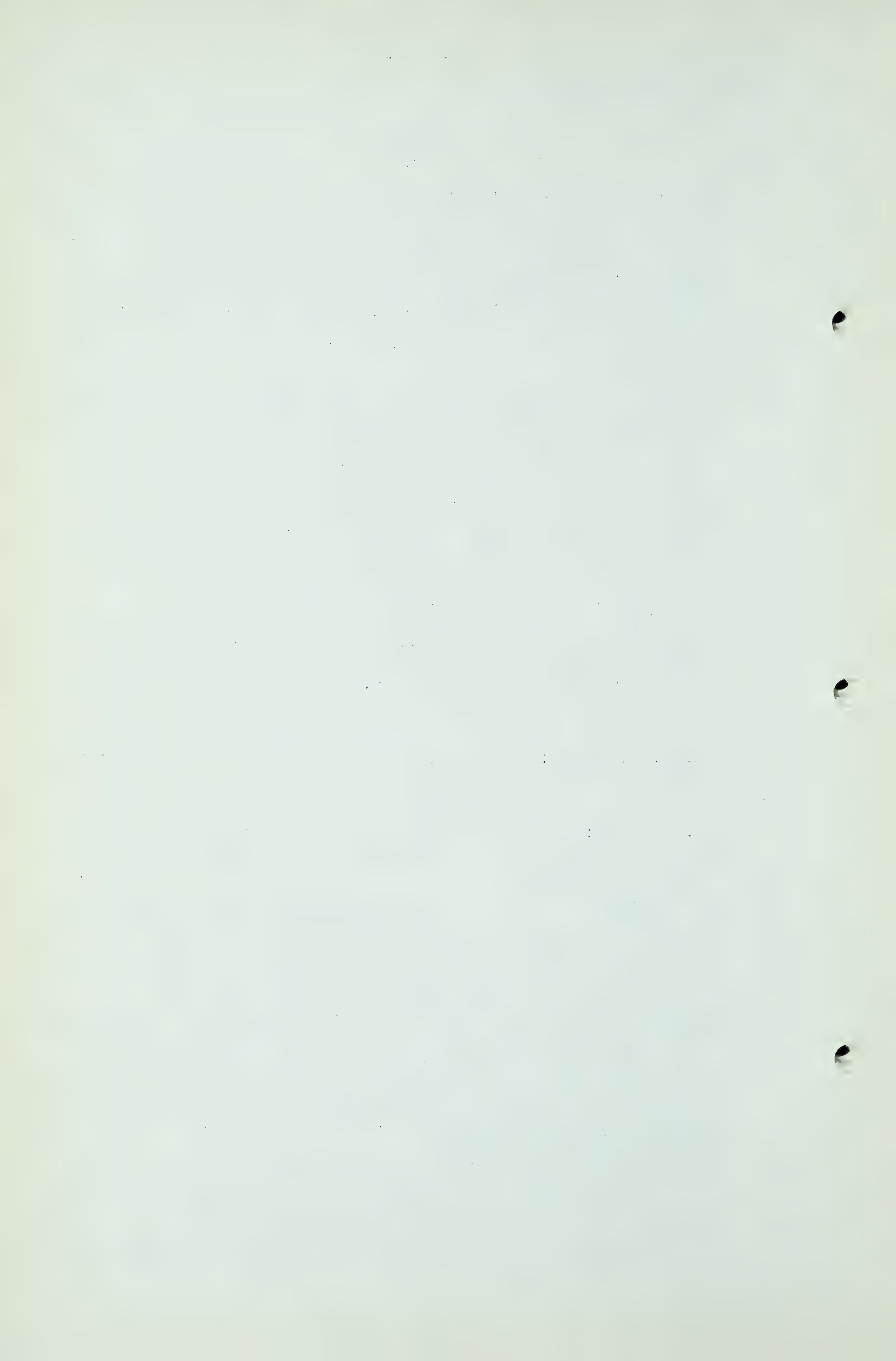
Q You strike me as a gentleman - -

MR. S. B. SMITH: Would you mind letting him finish?

A I think I am done.

Q MR. MAHAFFY: You were getting into a field that I thought was a little off the track. Now, Mr. Fish, you strike me as a gentleman who does not carry any unnecessary dead wood along with you at any time. Surely if you inherited this Provincial company, there must be some reason for your keeping it alive and making it a party to these proceedings?

A Well I do not know. In my business, even down home, I keep a couple of corporations just along the line. I do not know when the time may come that I may need them.



Ray C. Fish,
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MR. C. E. SMITH: Call for Mr. Blackstock.

Q MR. MAHAFFY: And do you take them along in an application of this nature and make a team of them instead of a single horse?

A Here we happened to inherit them. We will keep them. They might come in handy.

MR. S. B. SMITH: You should in all fairness point out that these companies were in the application and have been for a long time.

MR. MAHAFFY: He told me that and I think that is correct.

Q Now, Mr. Fish, I think you told the Board yesterday that you are acquainted with Mr. James O. Lewis, a Petroleum Consultant?

A He is a very dear friend of mine. In fact, he is doing a geological job right now for me. I called him from here the night before last.

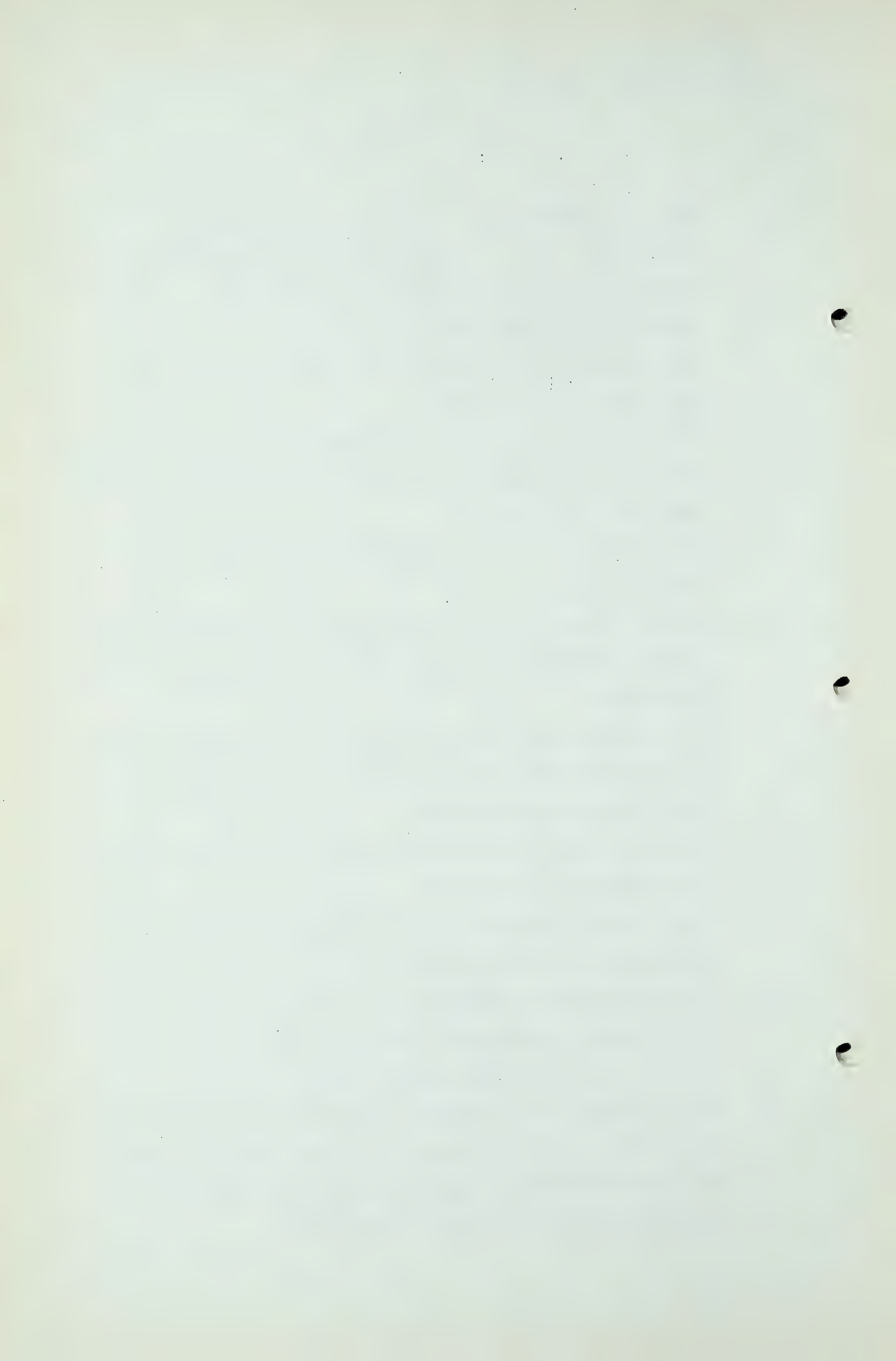
Q In other words, you have every confidence in his ability and professional standing?

A I have every confidence in his ability as a petroleum engineer and as a geologist.

Q Do you not have confidence in his qualifications to speak with relation to subjects relating to gas?

A In what manner? To what do you refer?

Q For instance, the feasibility of pipe line routes. That is from the point of view of the transportation of gas and the engineering details and whether a pipe line of any particular kind would be feasible?



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A As much as I think of Mr. Lewis, and I do respect him, as I said, with respect to geology. He has done work for me. We have worked together, but I say definitely he is unqualified to advise on the feasibility of a pipe line.

Q Can you say he is not qualified?

A Definitely not.

Q Do you say the only ground on which he is qualified to speak is in the field of geology itself?

A I would say in the field of general petroleum engineering and geology. But it is something entirely different when it comes to advising as to the feasibility of a line. I believe it takes an engineer. People who are completely familiar with the subject and who can make detailed estimates, and how much you can transport the gas for. I do not think that is Mr. Lewis' field any more than my field is geology.

Q But he is qualified to speak on the question of the conservation of gas?

A I would say definitely yes. He is high grade and a very competent individual.

Q I think probably I will save the time of the Board and yourself if I just read to you one or two things which Mr. Lewis said in evidence in a previous application before the Board. My friend Mr. Fenerty, who appeared for the City of Calgary, was questioning Mr. Lewis - this is on page 201 of Volume 3 of the Western Pipe Lines transcript. Mr. Fenerty said to him: "Q. Is it your opinion, Mr. Lewis, that the way to give local consumption protection as to reserves, is to have

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" certain areas allocated to them?

A You mean, is my opinion that each community should have allocated specific reserves?

Q MR. FENERTY: Is it your opinion that the most adequate way to protect that local community as to reserves is to allocate a particular area for their consumption?

A It is not my opinion.

Q That is the answer to that. What, in your opinion, is the way to protect them as to reserves?

A The best way to protect the communities of Alberta would be to put in a grid system so that instead of being dependent on one reserve, and no matter how carefully you estimate reserves, there is always some chance of error, that they would draw upon a common supply, therefore they are measuring or averaging out the areas, they are sharing those, and there is a more durable supply, and there are various other things which can happen to a field besides wrong estimates of reserves.

Q I see?

A They get into producing troubles, so that instead of relying upon only one field for any community I would advise them not to if they can avoid it, and I would advise them to tie into a general system.

Q I see. Yes, and at whose expense would such a grid system be provided?

A I presume that everybody who benefitted from the grid system would pay their just proportion of the expense."

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Q Do you agree with the opinion given there by Mr. Lewis, Mr. Fish?

A That is his opinion.

Q I know, and I am asking you yours?

A Instead of agreeing with his opinion I will give you my opinion.

Q You differ, do you?

A Oh, not materially. I just happen to be looking at a map of Alberta Province where there is a gathering system shown for the City of Edmonton and a gathering system for the City of Calgary. That system already fans out over a considerable area. That system could be economically extended to take in other producing areas. In fact, I have right alongside this map here several other fields and several other projects that could be connected. I would say that the gathering systems that the local utilities have now generally cover a wide area. They are not limited to one field. They already extend to quite a number of fields and in turn can be extended to other adjacent fields as soon as it needs to be done. Frankly, a grid system, after all, I think we should draw a parallel. The Province of Alberta, in this problem of marketing gas and producing gas, cannot be entirely different than other gas producing areas that the rest of the world have gone through. I have been through this thing for about 20 years down in Texas, the Panhandle and the Gulf Coast of Texas, and we have got, I might say, on the Gulf Coast areas of Texas around 91 trillion cubic feet of proven reserves, whereas, back in 1938, we had 12. In the balance of the State it



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runs about 120 trillion. I believe it is in that neighborhood. The total United States reserves are 181 trillion. Now up here we are talking about 5 to 7 trillion cubic feet. Not that I am trying to minimize the importance of that, but what I am saying is we have developed gas reserves in the State of Texas and the Gulf Coast over a considerable area from 12 trillion to 91 trillion cubic feet in 12 years, and we still do not have a grid system in there. The local authorities are being served and new pipe lines are being served and everybody is happy.

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A Therefore in my humble opinion, with the gathering systems these utilities have here, it can expand those systems to the field. I do, however, think as this Province expands it would be to the benefit probably of the local utilities, new companies that come in here, that get the permit, whether it is ourselves or some other applicant, jointly they should cooperate and build such a system but it should have an increment growth as required.

Q It would not be something that would be built holus bolus off the bat?

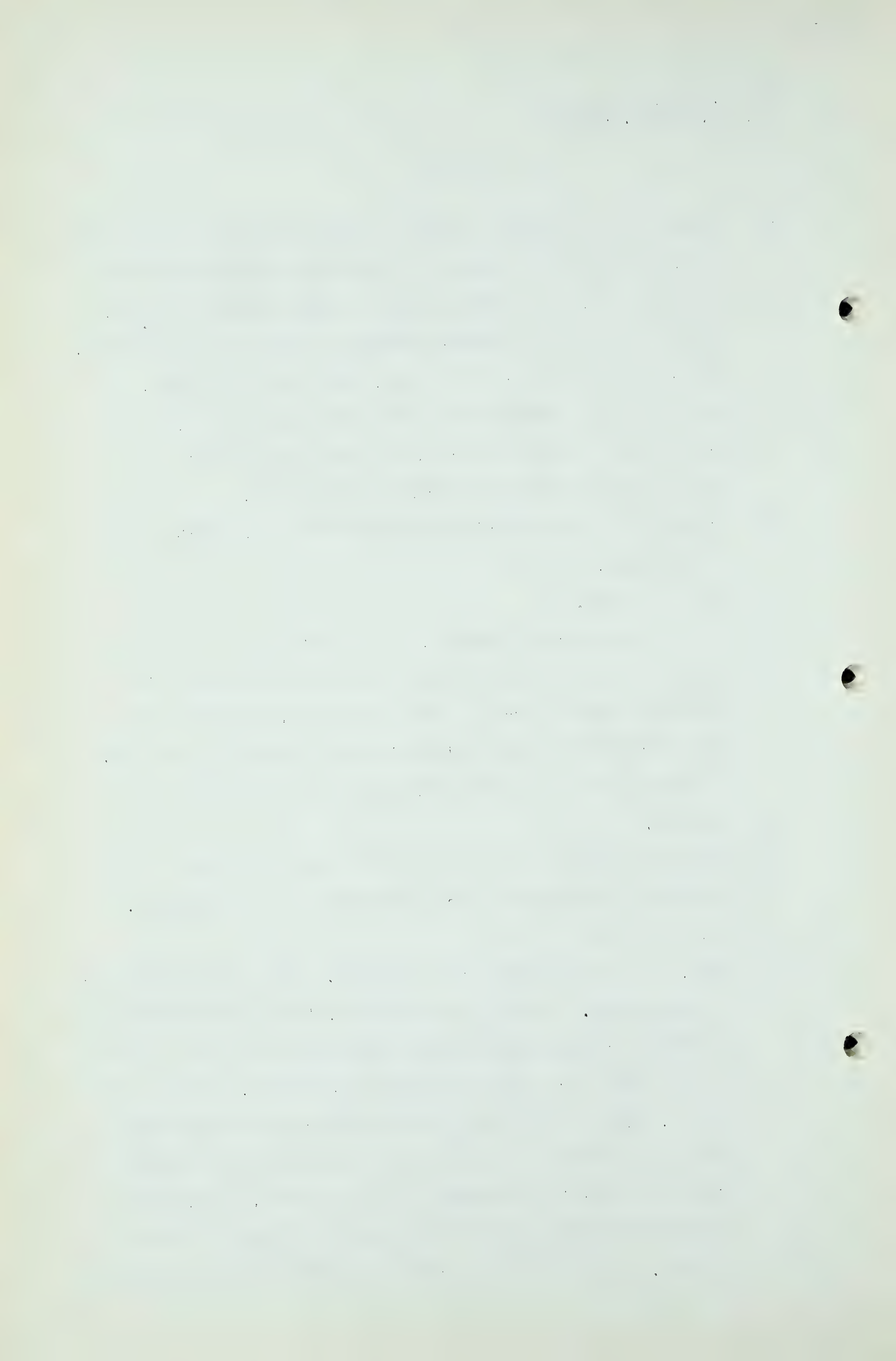
A That is right.

Q But it is a plan to plan to, is it not?

A I would say it would lead into that, and if we were to obtain an export permit I would definitely want to get together with the local utilities and jointly do the job. I think it would be more wholesome than ourselves doing it 100%.

Q And that system, or even the first stages of that system would be of benefit to local consumers in the long run, would it not?

A Well, let us talk about the long run. Let us get realistic on this thing. We have so testified, that this Province in my humble opinion should make sure that it has gas reserves to last them for a minimum of 40 or 50 years. I think they should. And if you look at this gathering system, maybe they are connected to many areas even though those areas will be productive for maybe 25 or 30 years. Now, there is no use spending money extending that thing out still further. If you were not going to export a foot of gas you



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might as well wait 25 or 30 years to do it.

Q Have you any idea how long these fields connected with the Calgary system can meet with peak loads?

A On the details of that, no, I am not, but I know if I was running the Calgary system that I would in the good interests of my company and in the good interests of the people, I would expand the gathering system I see on this map to other areas.

Q MR. C.E. SMITH: Where is this map from, Mr. Fish?

A It is in our geological report that will be reported later. I just happened to have a map.

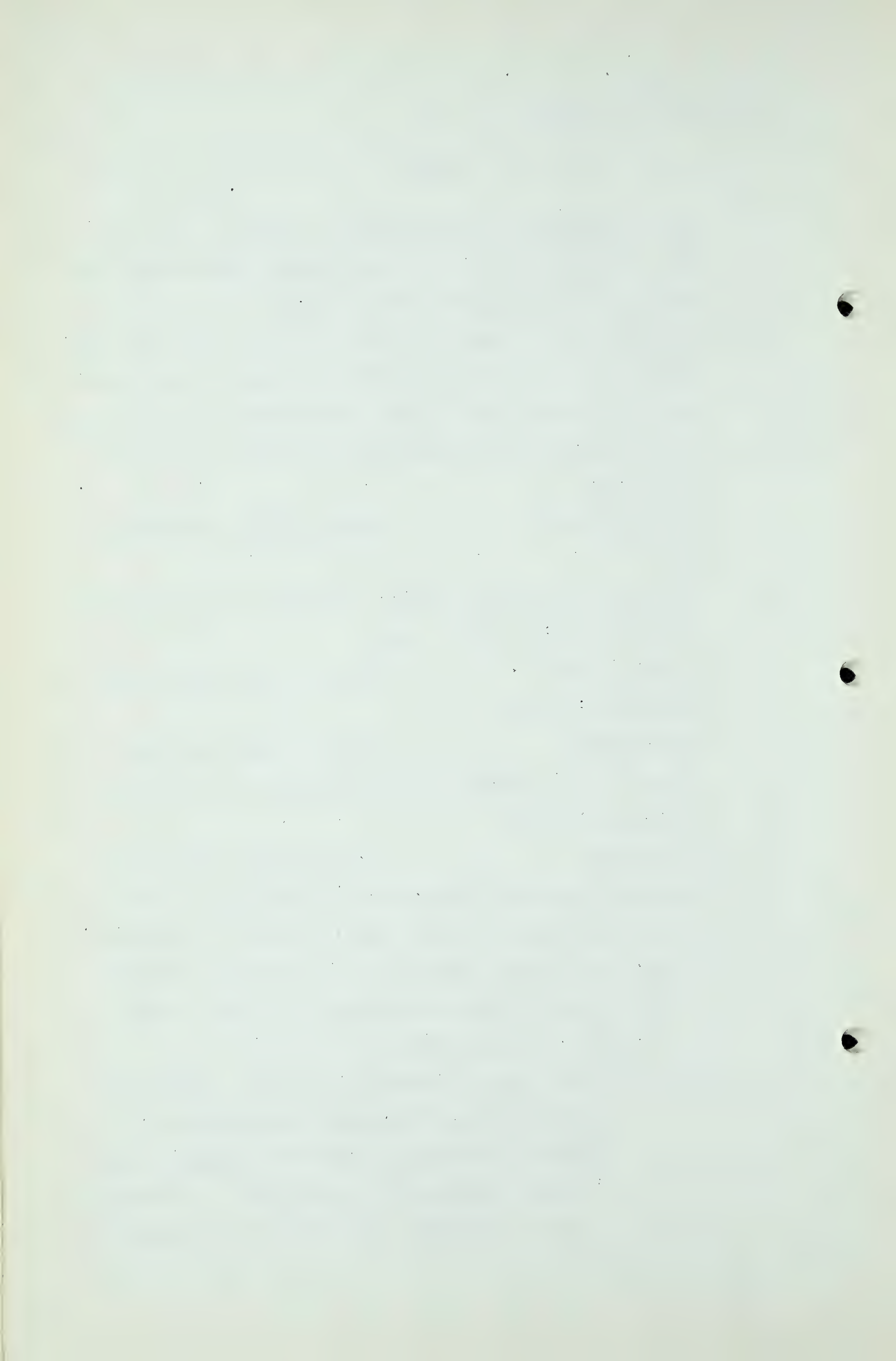
MR. S.B. SMITH: It is the last page in Mr. Galloway's report.

THE WITNESS: It just shows that even Calgary is not connected with one field, it is connected with several fields.

Q MR. MAHAFFY: Well now, Mr. Fish, you mentioned your Texas experience. I would like to read you a very short portion of Mr. Lewis's evidence at page 204. At that part of the transcript I asked him this question:

"Q. Have you had any experience in your country of a similar nature?

A. Yes, I am very familiar with that. Some States are just crisscrossed with pipe lines put in by different companies, individual companies, and we have a very large duplication of facilities, both in gathering of the gas and its transport-



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" ation. Had there been a grid system installed in the first instance, obviously the total cost of the gathering of the gas would have been materially reduced which in the end would have meant a much lower cost to the consumer.

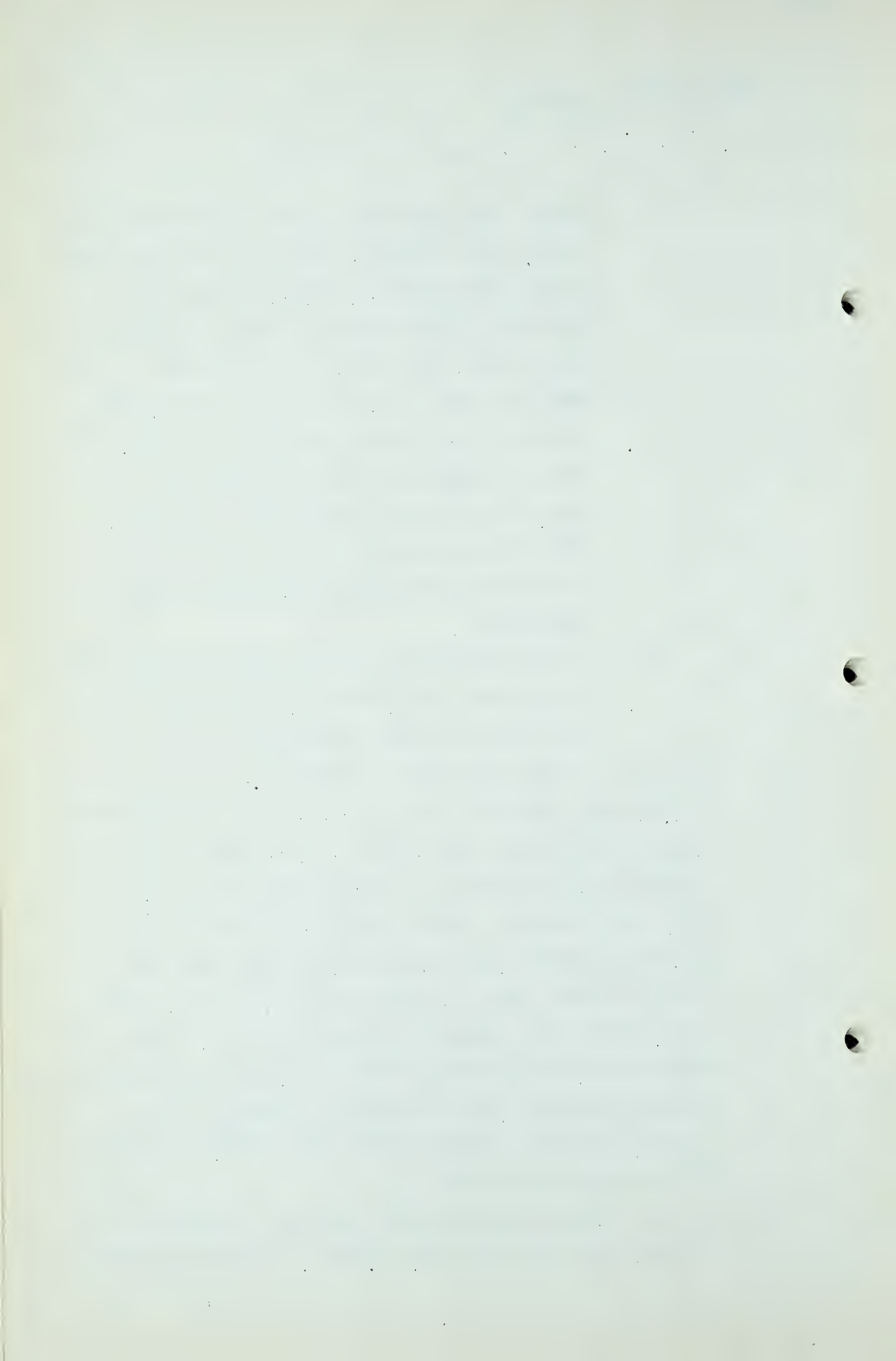
Q. Now, Mr. Lewis, I trust I am not putting any words into your mouth, and will you tell me if I am, if I suggest too that from what you have told us your opinion is that in a long range view of the problem it would be well to have the Alberta fields pooled and a grid system installed?

A. I think Alberta has quite an unique opportunity to keep away from the duplication of the mistakes which have been made elsewhere."

Now, do you agree with that or disagree?

A I think that generally agrees with probably the statements I have already made that today it is not justified, in my opinion, for the export of a small amount of gas but that such a grid system, I would call it a very extensive gathering system, should eventually be developed, and in turn, I do not think it should probably be given to any one company, the company that comes in, that is going to export the gas out, rather I think it should be the local people, the local utilities and that company. In my opinion it would be better to have them jointly owned to better serve the overall.

Q In your evidence yesterday, Mr. Fish, as I understood it, you said that the gathering system is a system which has



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to grow like Topsy?

A Yes.

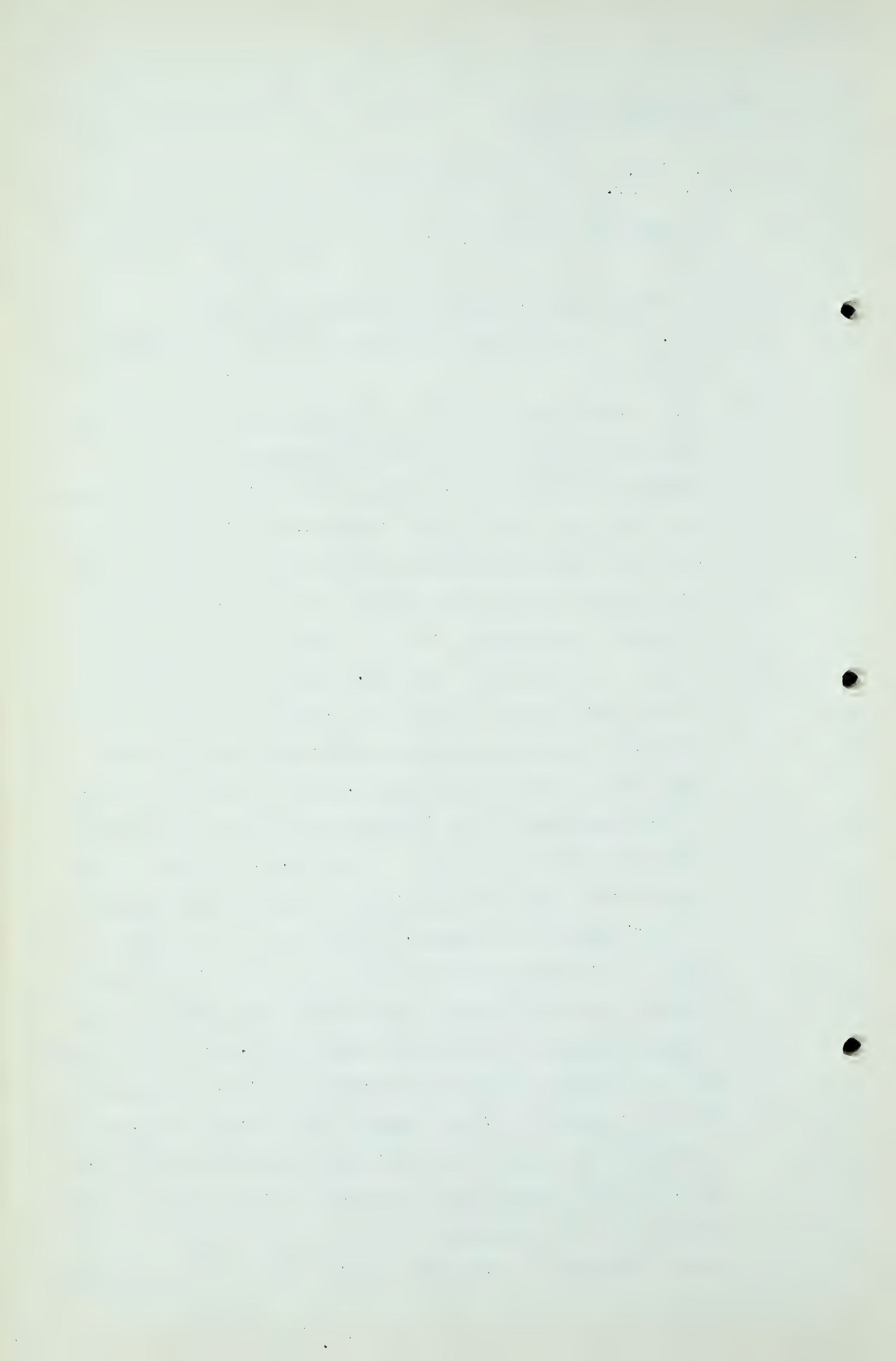
Q Now that is what happened in Texas, isn't it?

A No, sir. You did not understand it. Do you want me to explain it?

Q Do you think there should be no attempt made to plan the gathering of gas in the Province of Alberta?

A Actually what happened in Texas, and I would like to explain that point, and that is that various transmission companies that came down into the area, and we have been one, but we have numerous lines coming down. It is true they parallel but whether one company did it or four or five companies did it, you would still have practically the same amount of pipe down through South Texas. Here is Tennessee Gas. They now transverse practically the total area of South Texas clean down to the Mexican border. Parallel to that is Transcontinental, and Texas-Illinois almost going down there within 80 miles of it. I will say this, that no one company could have initially built a system large enough to have supplied the demand of those four or five pipe lines. At no time could they have done it. So that they could be in that instance either built individually or one company and would have had the same total cost in it. You can do it in say five different companies or the one company. Now, if you did it in one company, that company would have a monopoly on the gas in South Texas and the producers and everybody else would be at the mercy of that company. I do not believe in monopolies.

Q Would you agree or disagree with Mr. Lewis in this statement



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"I think Alberta has quite an unique opportunity to keep away from the duplication of the mistakes which have been made elsewhere."

A I do not think there have been too many mistakes, looking at it overall.

Q I am asking you, do you agree or disagree with this statement?

A I am kind of in between.

Q Now, you mention monopoly. My friend, Mr. Nolan, asked Mr. Lewis some questions too at page 215 as follows:

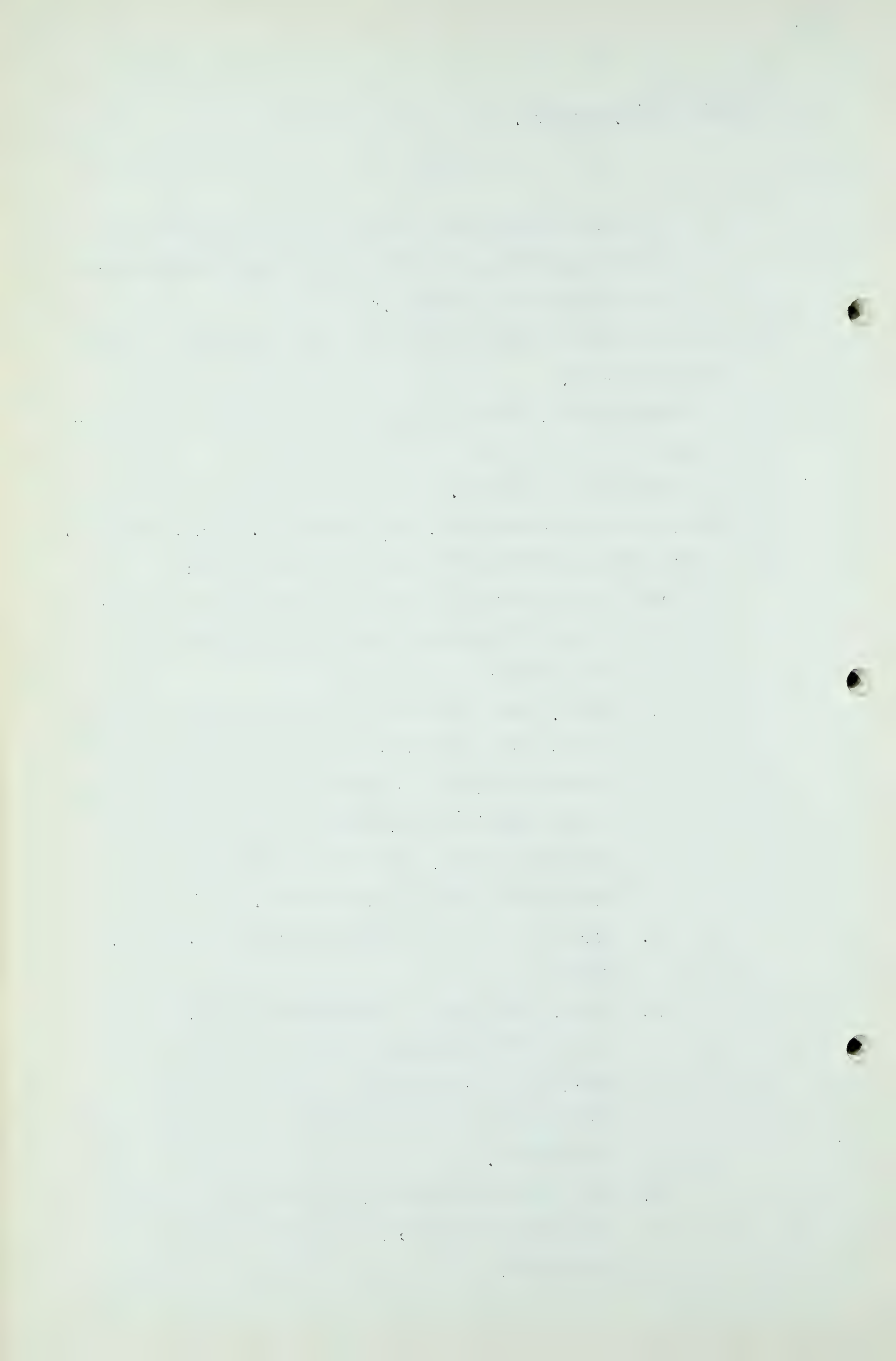
"Q. Do you think it is a good thing for one company to have a complete monopoly of the gas gathering system?

A Well, that goes into a question more or less of policy and politics and in any monopoly like the company serving a community there is this matter of the question of whether it is good policy to have monopolies, and it has been solved here and in the States by regulation.

Q. What do they do in your own State, Mr. Lewis, Texas?

A. Well, they have two regulations there, one is by the State and where it concerns any line or facility which crosses a border into other States it is also regulated by the Federal Government.

Q. But within the State itself there is free and open competition so far as gas gathering is concerned?



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"A. Texas is rather peculiar in that they have gone in less for establishment of monopolies in the way of public facilities than most States."

Do you agree with that so far?

A I believe in free enterprise, sir.

Q Then he goes on:

" Now, in most States, California, for example, the public utility bodies take the position that it is better to have one company in a community serving it if it can do so adequately than to allow a lot of competing companies to come in with duplication of services. In Houston there are two companies serving gas there.

Q. Which do you favour, which system, the California or the Texas?

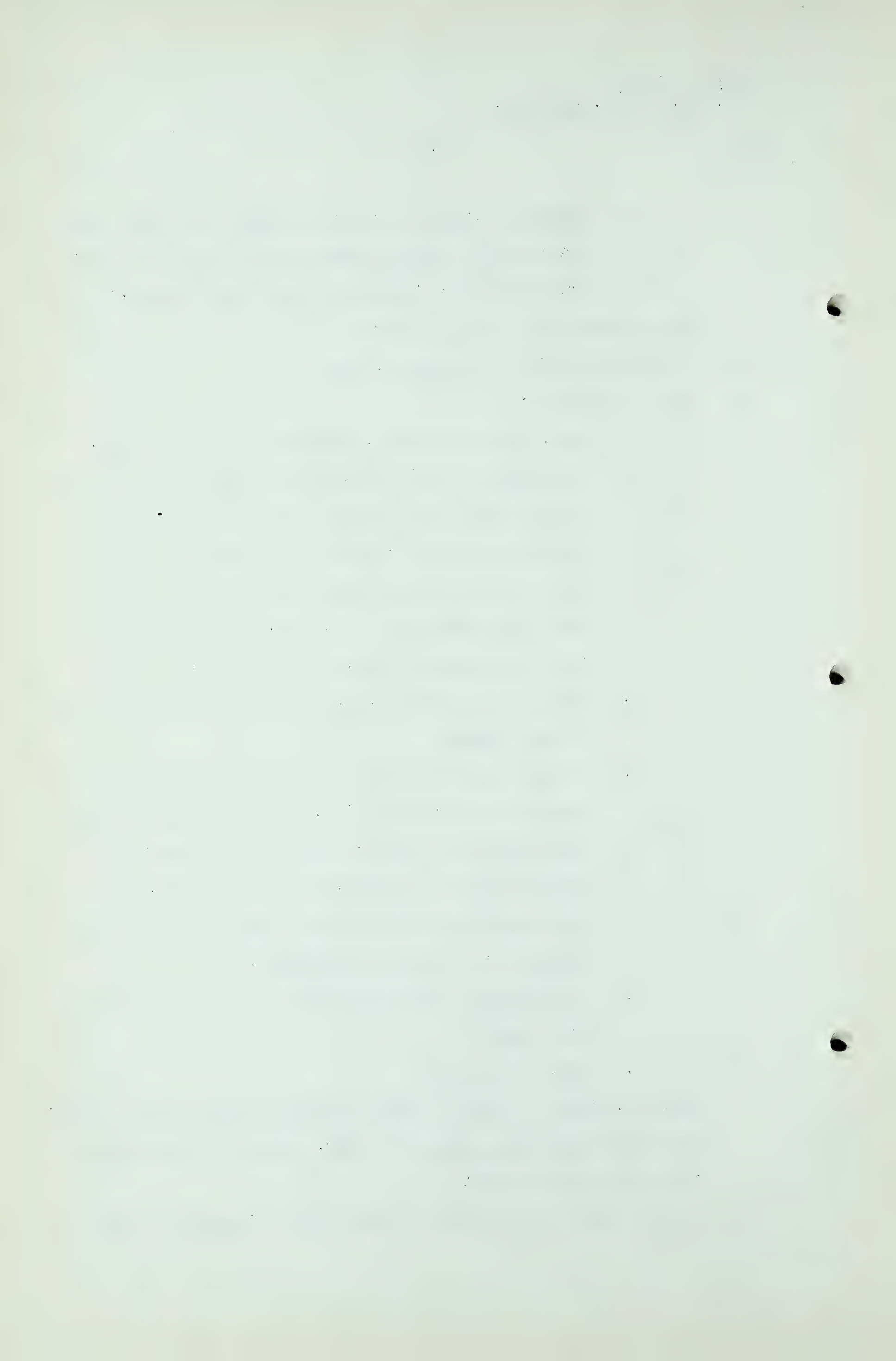
A. I think the California system is better in the case of public utilities. It is better to avoid duplication of services and put it under one company and one system. But, of course, that requires that there be close regulation in the protection of public interests.

Q. You mean the Government must be on the alert at all times?

A. Yes, I think so."

Now, Mr. Fish, it may be idle to ask you, but do you favour the Texas system as outlined by Mr. Lewis or do you favour the California system?

A In the States we have the Federal Power Commission that



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has complete control over inter-State gas pipelines. In
turn - -

Q Now, surely you can answer my question?

MR. S.B. SMITH: Let him answer it, Mr.
Mahaffy.

THE WITNESS: I need to explain my answer,
if you would like it.

MR. S.B. SMITH: I am going to object and ask
that Mr. Mahaffy permit the witness to answer the question,
sir.

Q MR. MAHAFFY: That is fine. I thought
probably Mr. Smith was in a hurry.

A All I really wanted to say was that the Federal Power
Commission has complete control over the inter-State pipe
lines and as such they give an exclusive franchise to that
pipe line to serve a given market. On that basis I think
the same thing should apply to a State or a Province, that
the Government should protect the investment of that
utility and give them an exclusive permit. Therefore, I
would favour the California procedure.

Q The California system?

A Yes. In other words, if it is good for the nation it should
be good for the State. That again is just my opinion.

Q Now, I believe you also know Mr. Hawthorn, Mr. Fish?

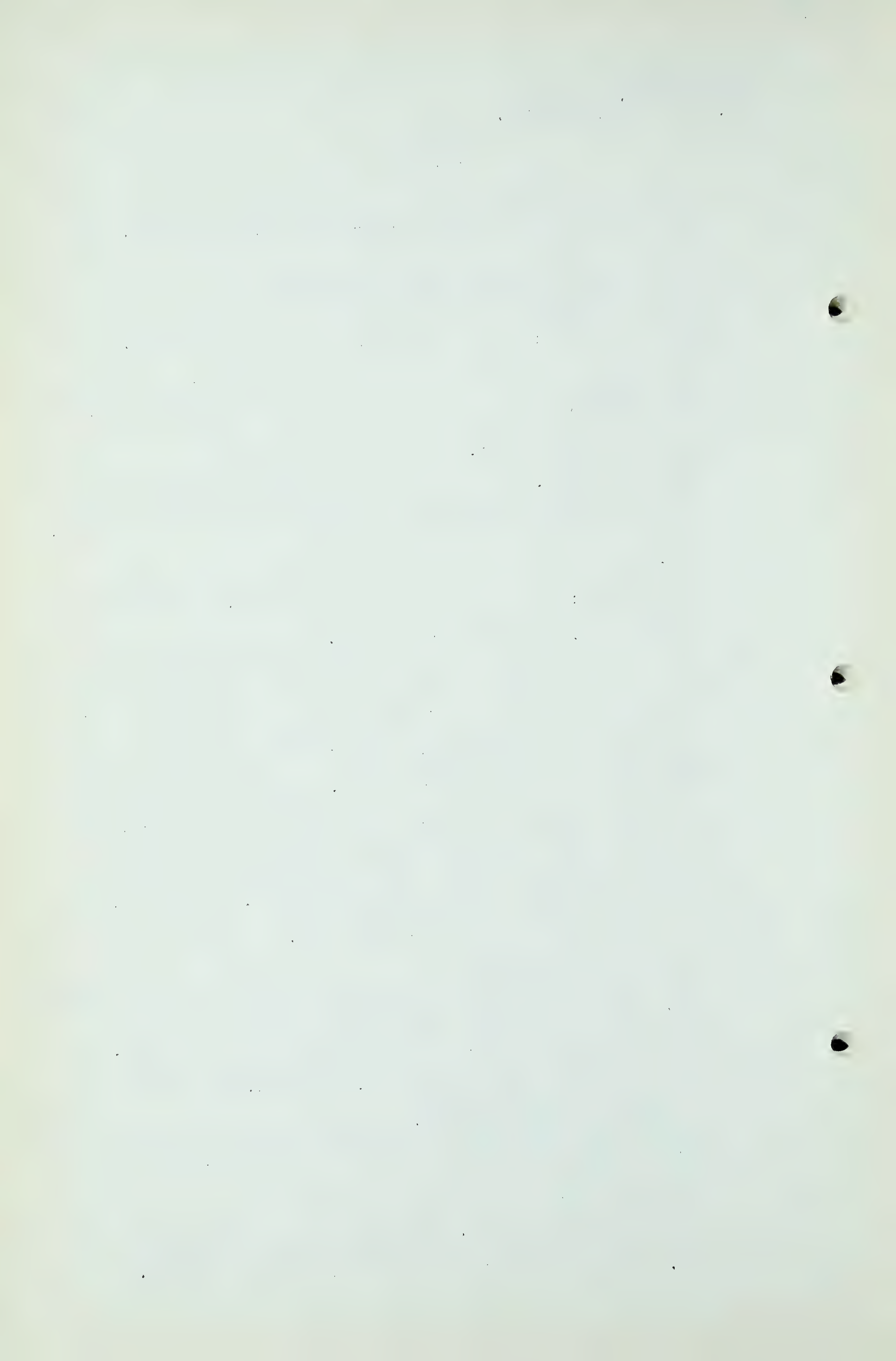
A A very dear friend of mine.

Q And he comes from your big State of Texas too, does he not?

A That is right.

Q And is a partner of Mr. Lewis?

A Yes. We see a lot of them socially and in business.



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Q And he is a qualified man to speak on the subjects you and I have been discussing?

A On petroleum engineering, gas and oil reserves, yes, sir, he is very fine, just like Mr. Lewis.

Q Well now, in Volume 4 of the Western transcript, page 338, I asked our friend, Mr. Hawthorn, a few questions which I would like to read to you and give you his answers.

A Yes.

Q Incidentally, he confirmed what his business associate, Mr. Lewis, had said, and then I asked him this question:

"Q. Now, it seems clear from your evidence and the evidence of others that the problem of deliverability is a real problem, is it not?

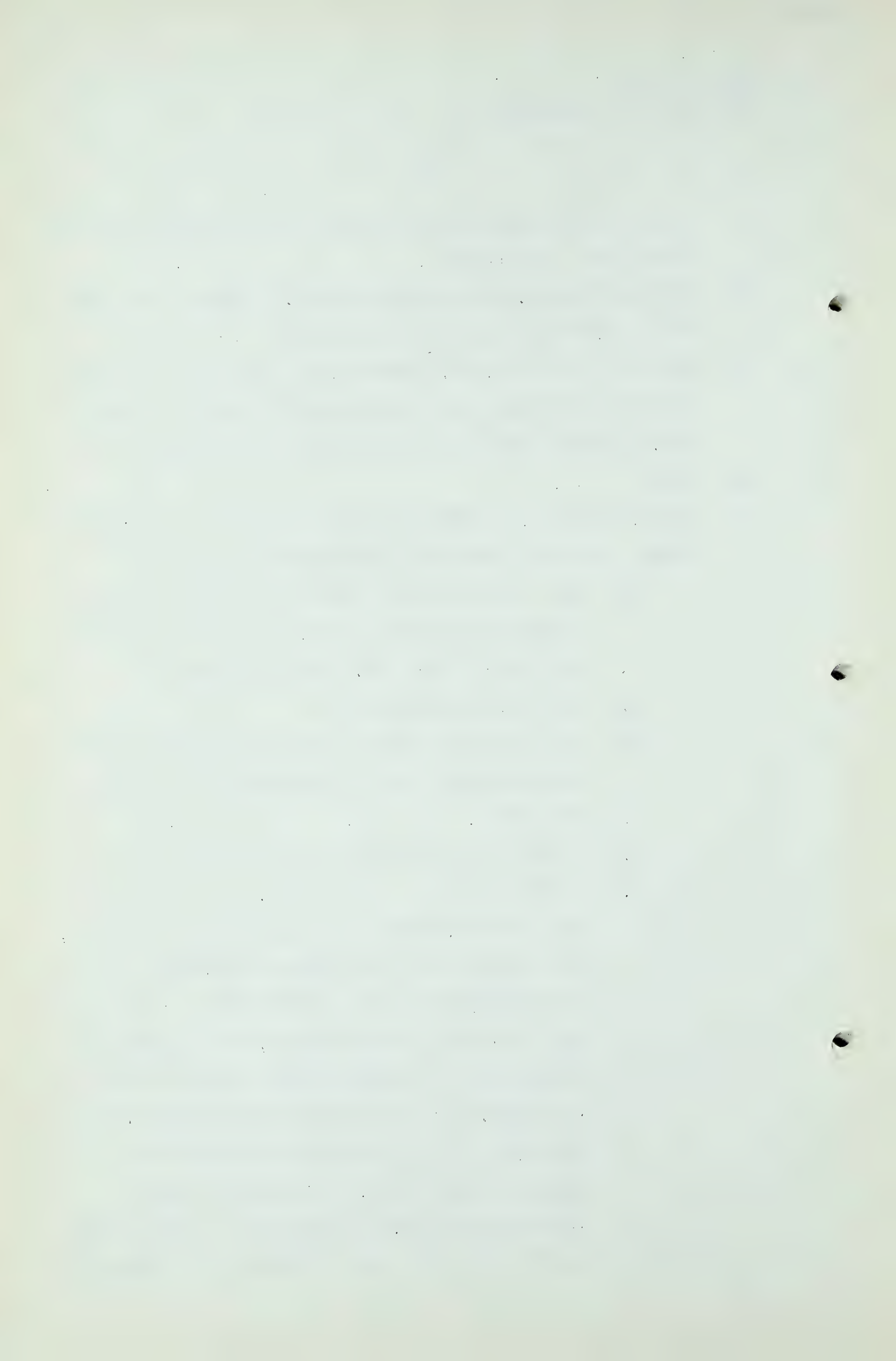
A. It is a real problem.

Q. And would the establishment of a suitable grid system help to solve the problem of deliverability?

A. I think so, very much, very decidedly.

Q. In what way?

A. As I have described it before, by pooling all the reserves, all the transportation facilities, all the facilities for storing gas. I think that such a project would serve greatly to alleviate the problem of deliverability, smooth out the load, smooth out the availability of gas to the consumers. If a situation arises like Mr. Fenerty suggests that there is an overall shortage every place, obviously the grid system can not cure that, all it can do is to even out



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" the shortages and make the critical shortages
less critical."

Now, Mr. Fish, would you agree with Mr. Hawthorn's opinion
on that point as applied to deliverability of the field?

A I believe that is almost the same as you read before from
Mr. Lewis along that same subject, is it not substantially
so?

Q This, you see, had more to do with deliverability?

A With deliverability, I see. In that testimony Mr. Hawthorn
probably qualified himself, he said "he thinks", you know,
like that is just an opinion. Of course, that is what we
all have, an opinion on deliverability. Maybe mine might
be a little bit different.

Q You are not prepared to say?

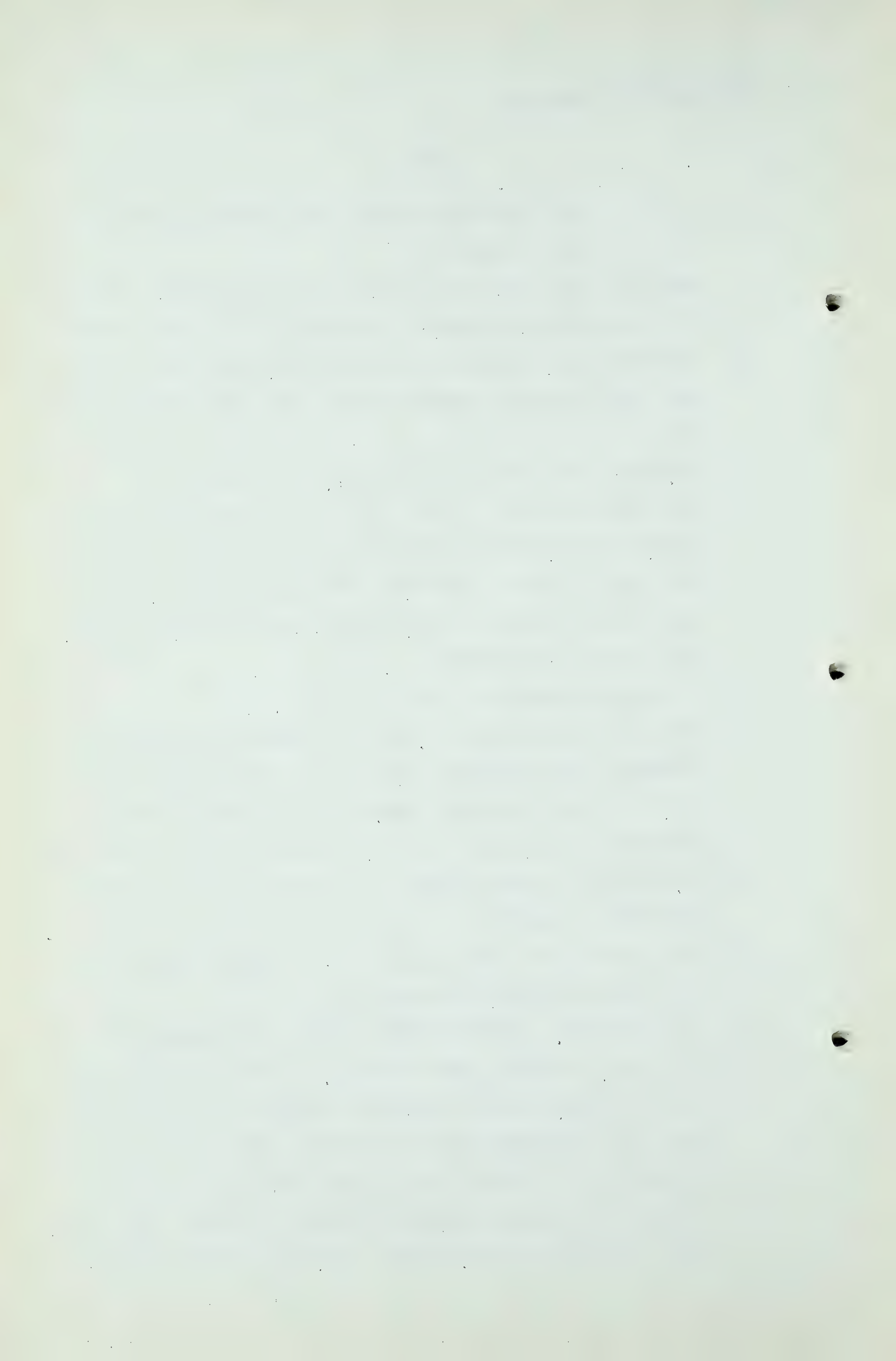
A Yes, I am not prepared to say. As applied to my Prairie
companies I am prepared to say, if you would like to hear
it, but I am not saying I agree with that or disagree or
anything but I can give you my version of it if you like it.

Q You say you are not prepared to either agree or disagree
with this statement?

A That is right. I will let you have my version of it.

Q Very well, I would like to have it.

A In my opinion, the main problem before this Board is to
arrive at the proven gas reserves and from the proven gas
reserves then determine is there a surplus of gas over and
above the requirements of the Province that can be exported?
If there is no surplus, and in turn, Prairie has said that
the Province should keep 40 to 50 years' supply, and I would
most certainly do it if I were up here in the Province, I



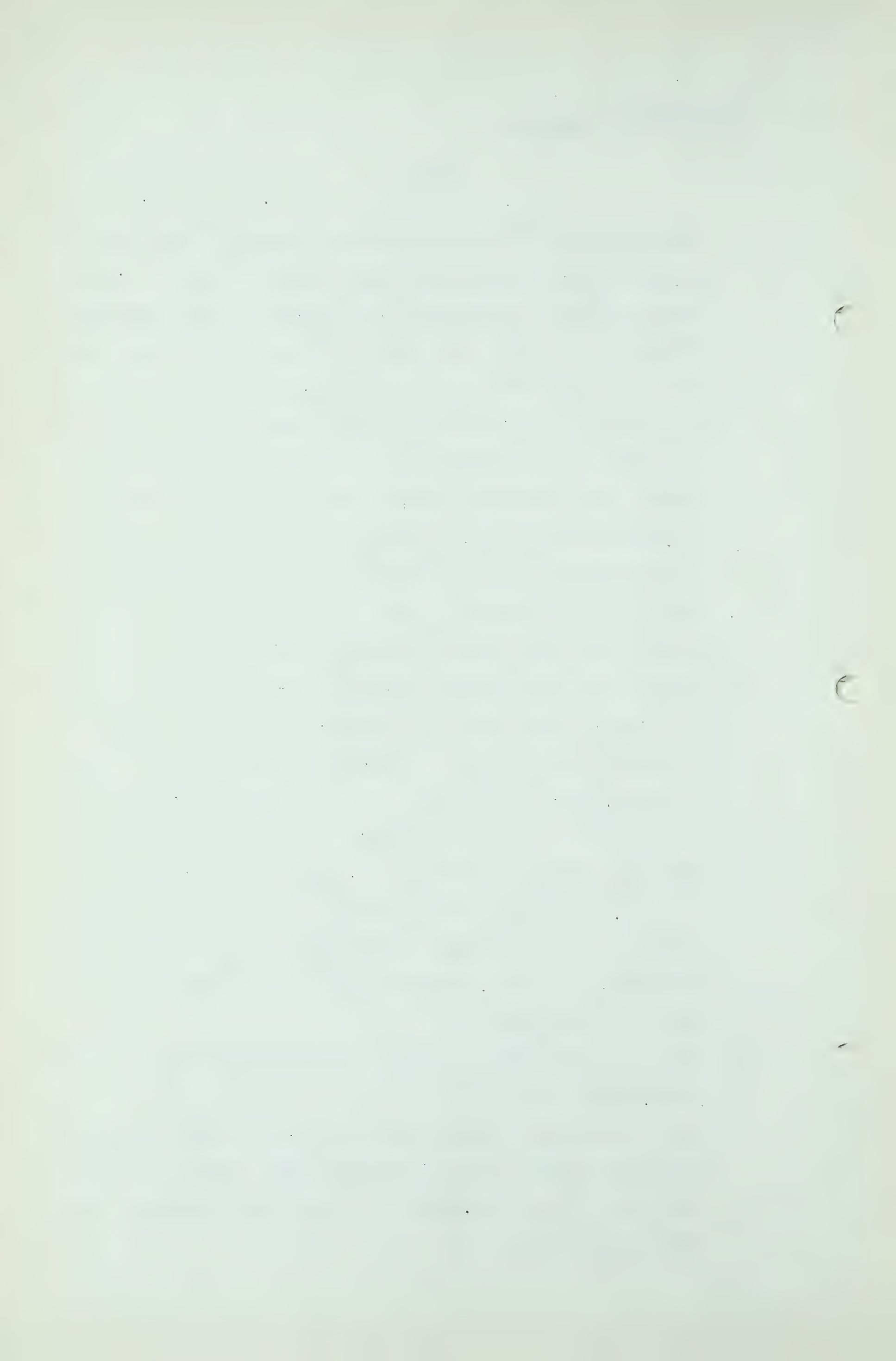
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would fight for that 40 or 50 years' supply. Now then, if capable geologists can show that there are proven reserves only sufficient to meet the requirements of the Province, I would say, do not sell any. But if, in turn, geologists can show that there is a surplus and that the potential possibilities of the Province are great, in the best interests of the Province, if I was in Government, I would permit that difference between what is required for home consumption and what is proven, I would let that be exported. Then we come down to the point of deliverability. Those reserves probably would not be deliverable but they can be made deliverable by drilling additional wells. By opening up an additional market the producers will have an incentive to make that gas deliverable. And if you have 50 trillion cubic feet of gas up here, if you do not have a market that is available for it, it never will be made deliverable. That is my version of deliverability. The gas can be made deliverable. It can be made deliverable to local markets and local markets, in my opinion, should come first, protect them. After that the gas can be made deliverable for other markets and it can be made deliverable for local markets.

Q But you do not mean to suggest that deliverability is solved by drilling alone, do you?

A Oh, yes. If you can prove that you have a given amount of gas underground, in the underground jug, there is only one way to get it out and that is to poke some holes down and start producing the gas.



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Q Aren't there some problems of uniform production in certain fields?

A Some fields might get more wells in it. In other words, instead of drilling on 640 you might have to drill on 320 or 160, but that is still more gas wells.

Q Do you think, for instance, if you pool all your requirements from a certain area, from a field like Pincher Creek, without having any supplementary supplies - -

A If you have enough wells in it you can do it. In other words, you can take it out in 10, or 20, or 50, or 100 years, but to not hurt the reservoir, to take it out say two or three hundred million a day, just talking now, it might take 50 wells. If you wanted to take out 50 million a day probably all you would want would be four or five wells. It amounts to how much you want to take out of the jug.

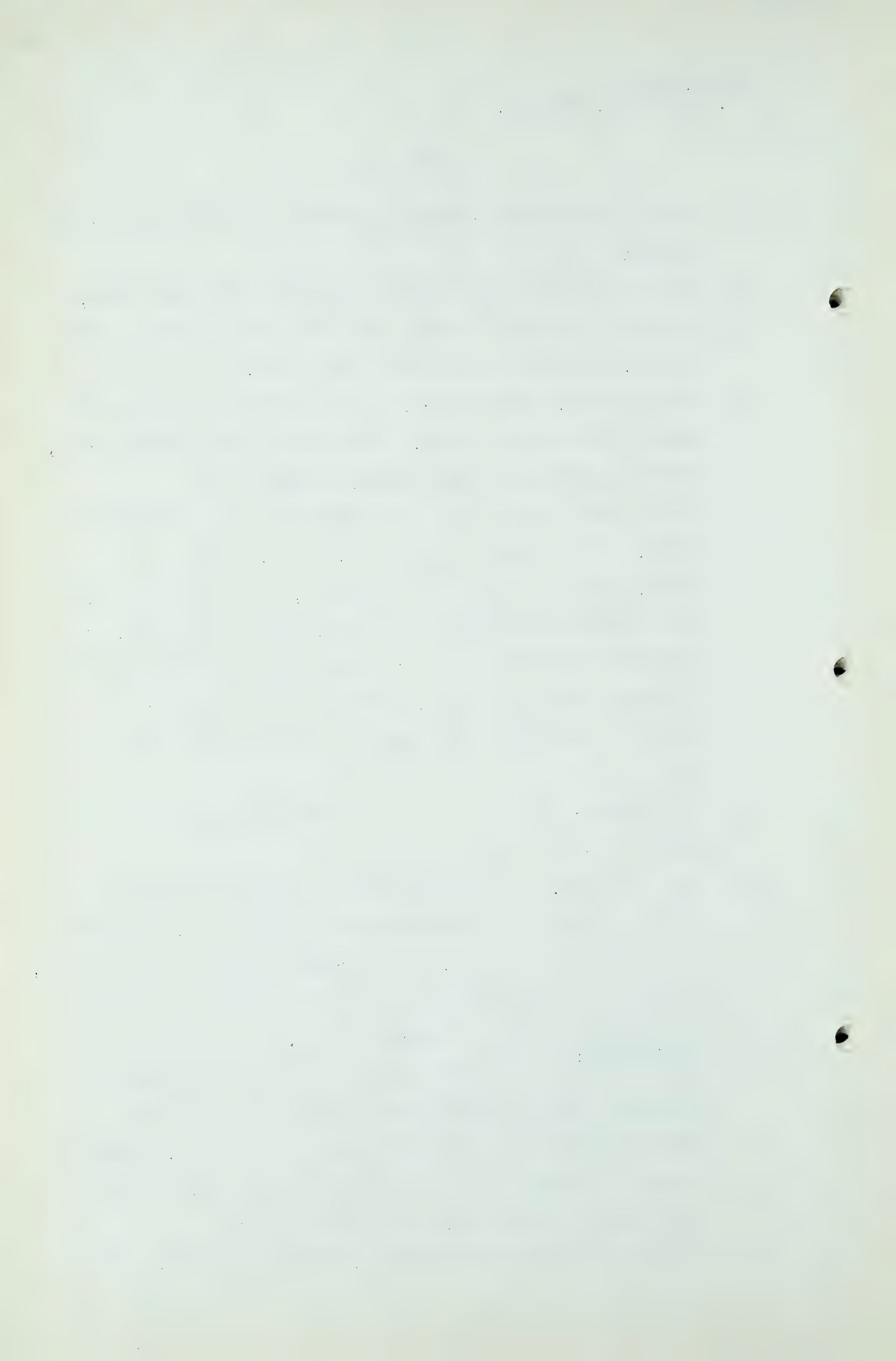
Q MR. FENERTY: How much you are prepared to spend to take it out?

A That is right. It comes down to economics on the part of the producer in the development of his field. The whole business world, I think, is substantially built on economics, whether it is in the oil business or gas pipeline business or running a clothing company up here.

MR. MAHAFFY:

Q And do you not think there might be some complications in producing market requirements of gas in a field like Pincher Creek if it were to supply, for instance, a market in this northern part of the world where we have 50 below zero one day and 97 above six months later?

A I would not personally see any difficult problems. On



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that question, based on my experience back in 1932 and 1940 when I built a plant for Montana, they have 50 below zero. I personally operated that plant for a while. It is kind of rough and rugged but you can do it.

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Q Mr. Fish, a lot of engineers who have appeared before the Board seemed to think there is a considerable difficulty there. I just wondered what your view of it was?

A Yes.

Q Now, I gather from your statement yesterday, Mr. Fish, that you felt that the consumers in the Northwestern states, that there were definite advantages due to the fact that you had a double supply planned in your system, and also you mentioned the fact that you crisscrossed several other trunk lines, and that was an advantage too, and I think you said it constituted a true grid system, that is right, isn't it?

A That is right.

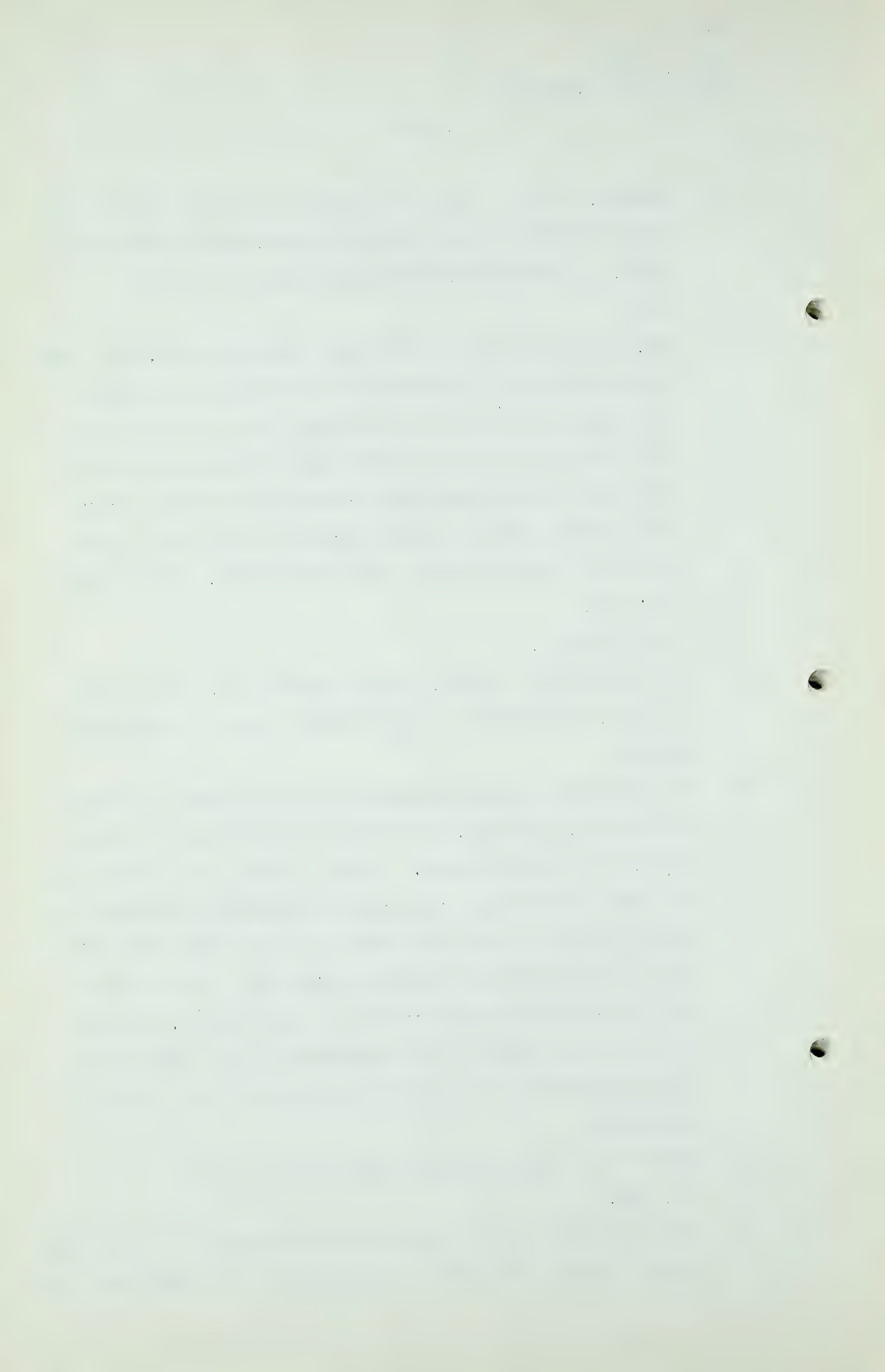
Q And that double supply, as you describe it, is, in your opinion, an advantage to our friends out on the Pacific Coast?

A It would add to the dependability of the supply, although one system, a system, a system from either here or there is entirely satisfactory. What I mean, just to give you an idea, after all, I am supplying through my transcontinental system New York City which is practically 2000 miles away, and supplying it with one pipe line. That is our only source to get gas over there, and it is O.K., but I think you just make it more dependable, just like taking along two spare tires on an automobile when you are on a long trip.

Q Maybe it is like taking one spare tire, is it?

A No, two.

Q But you do say that it is a definite advantage to have that double supply? And what I am getting at is, would that not



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also apply to Alberta consumers?

A It would be a definite advantage.

Q It would be a definite advantage to be on a double or more supply foundation?

A Well, yes, and I think on your basis of reasoning I can say that it is. I can see right now where even Prairie and Pacific Northwest might offer the Province something and the City of Calgary something if we are permitted to build our pipe line system into the Southern part of Alberta, should they in time ever start running out of gas, and we would be only too glad to bring a little more up into this country, just reverse this line, so that you up here in turn would have a two-way supply from our pipe line system. In other words, if cold weather came up here and your pipe lines went out, we could reverse our pipe line and put some of the gas back up here and help out during periods of cold weather in the winter in Alberta.

Q The Texas line, do you mean?

A Yes, that is right, if it so happened that you needed it during a cold winter's day we would bring it up to you here.

Q Do you know how much that would cost, that Texas gas in Calgary?

A We would let them pay us back. We would put it on an exchange basis. Incidentally, that is done in crossing these other pipe lines. My good friend, Bill Poor, knows that. Where we cross these other pipe lines by our Transcontinental, and where we are connected with the other pipe lines and they blow out, we supply them with gas. We do not sell it to them, we give it to them, and in turn

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if we blow out they give us something back, and we would do the same thing up here.

Q Thank you very much, Mr. Fish.

A Yes, sir.

.....

CROSS-EXAMINATION BY MR. FENERTY:

Q Mr. Fish, just before I come to a couple of points in your evidence?

A Yes, sir.

Q I was rather interested in this discussion about the surplus gas?

A Yes, sir.

Q I wonder if we all have the same idea of what is surplus?

A Yes, sir.

Q I have a conception that if you have one field or one area from which gas is being taken, we will say, by two parties, we will take, for instance, internal consumption and export, and export is entitled to the surplus gas from that field, and you have a condition, as I think we can all agree you may have in these deep areas, that perhaps after taking gas for 10 or 20 years from that field it becomes expensive?

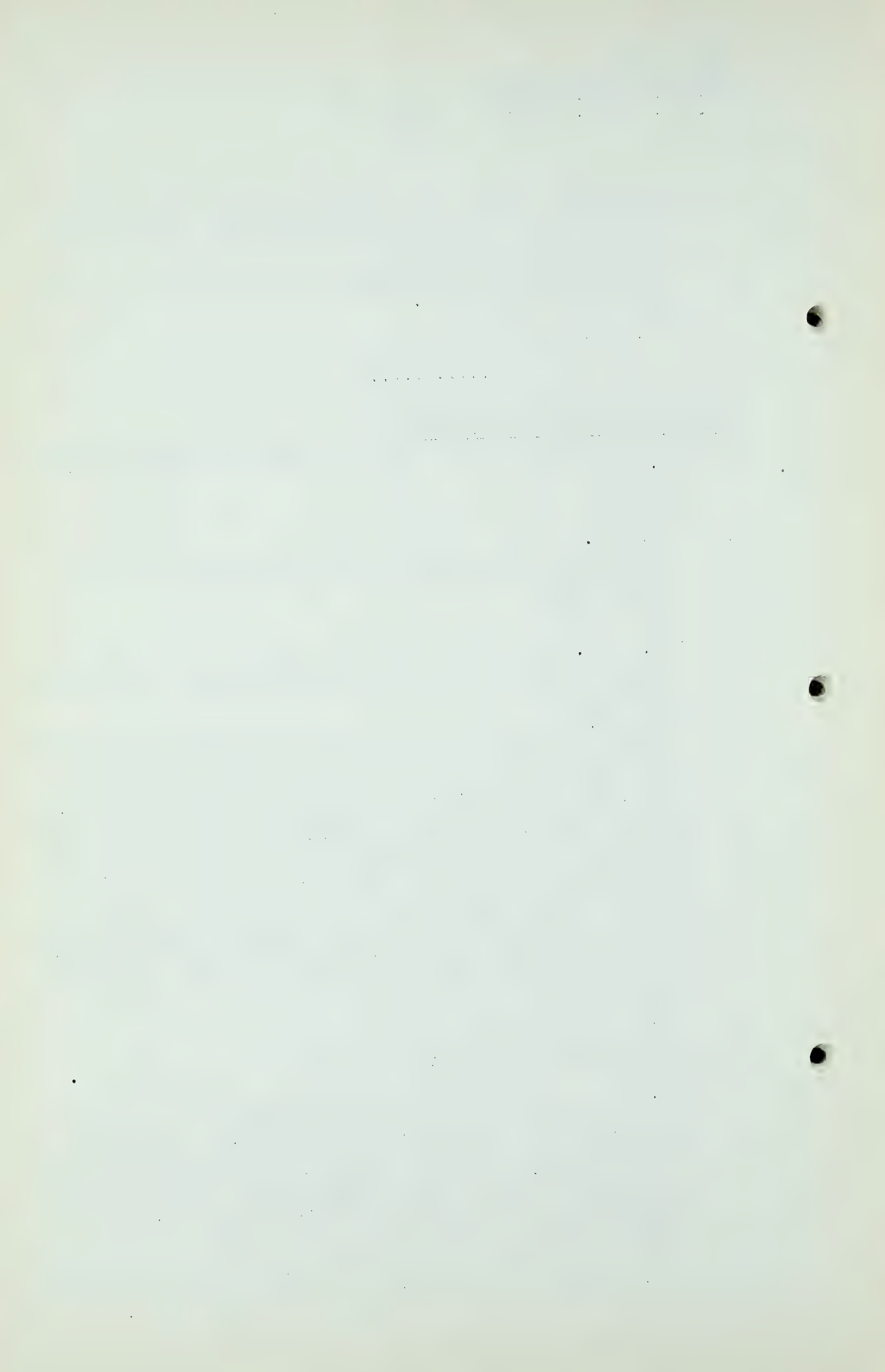
A Yes.

Q Low pressures and so on?

A Yes.

Q We do not need to go into all the details. It becomes very expensive. My idea is that that very expensive five dollar gas, to put it to an extraordinary figure, is the surplus gas and not the thirty cent gas that we have?

A Well, we used to, you know, in the Gulf Coast area of Texas,



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we were getting 3000 and 4000 pound gas, and we took it down to 500 pounds or 1000, and said that was all the gas there was.

Q Yes?

A But it is amazing, out in the Texas Panhandle I have today several contracts, and you know what they are going to do with it, they are going down to 50 pounds, and it is not too expensive.

Q I know that is amazing, but.....

A Now, it might not cost, for instance, referring to it particularly for the local consumption, if you took it out for local consumption and brought it down to 400 pounds, that is only a compression ratio of four, and if it costs 2 mills per a compression ratio, that is only a cent or a cent and a quarter.

Q I know it is amazing?

A And it may be brought down to 400 pounds.

Q I am not an engineer, I am a lawyer?

A Yes.

Q What do you think of my conception as to what normally would be surplus, that is the thing I am interested in?

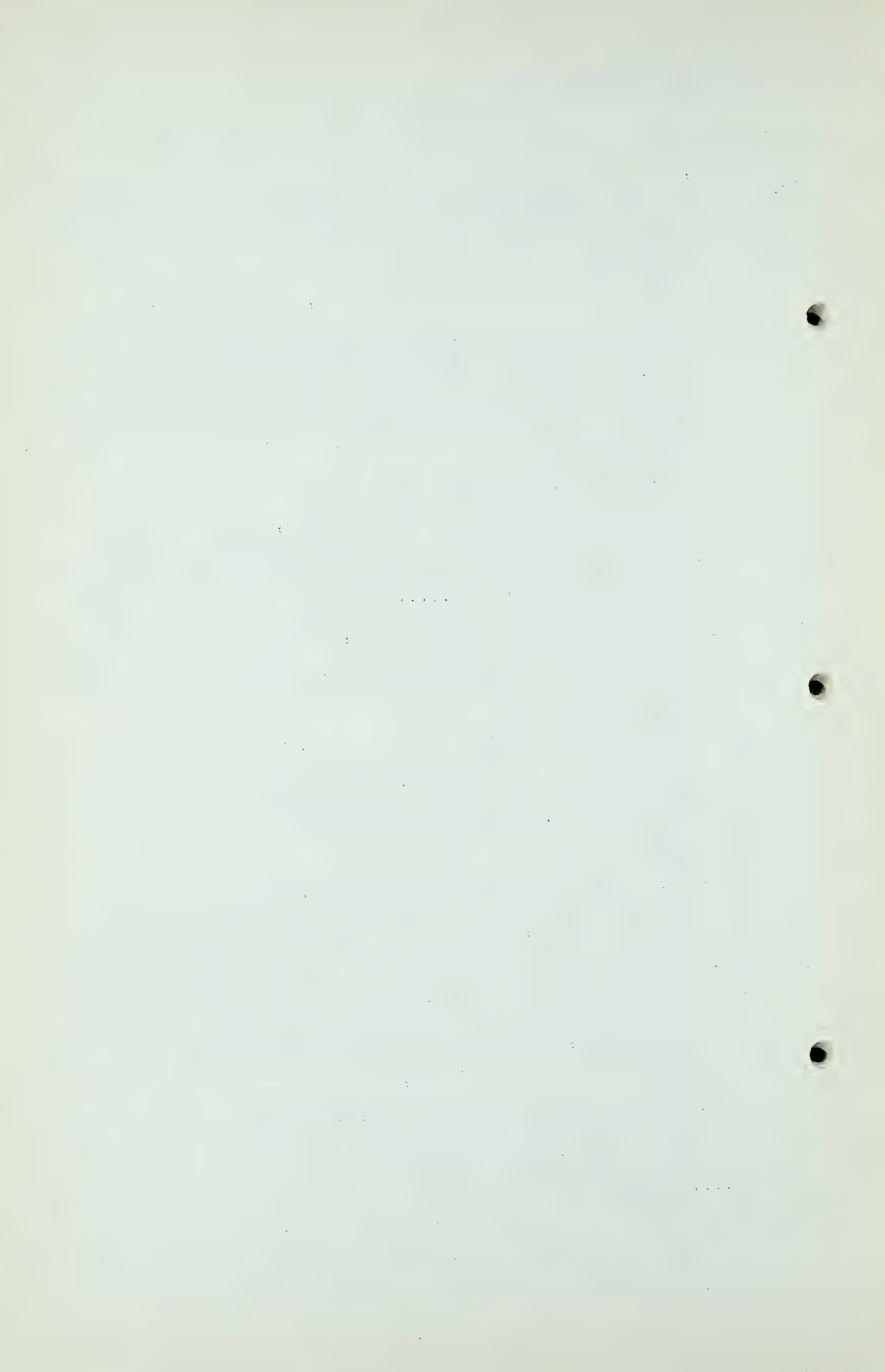
A It would be like, in my opinion, like the local utilities, referring to those that you have here, they are connected to certain fields, I do not think that the new system should go.....

Q Let us discuss the dictionary for a minute. What do you think of my idea of surplus?

A Surplus?

Q Yes?

A Surplus gas to me would be the difference between that



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that is required for 50 years for the Province and that which is proven by geological report. That would be the surplus.

Q That would be the surplus?

A Yes.

Q At comparable existing prices?

A Yes.

Q All right, that is fine. We will get to the price element in a moment?

A All right.

Q If we are going to give them protection, you have got to have two things, you have got to have the deliverable gas and you have got to have your price for local consumption. I might say 50-50. The gas is one thing and the price is another. Wouldn't you agree with me?

A I would say the price from the gas fields, but whether it should be the same, whether it is to a local utility or to an export line, do you mean?

Q You should not increase it as a result of export?

A It should be the same.

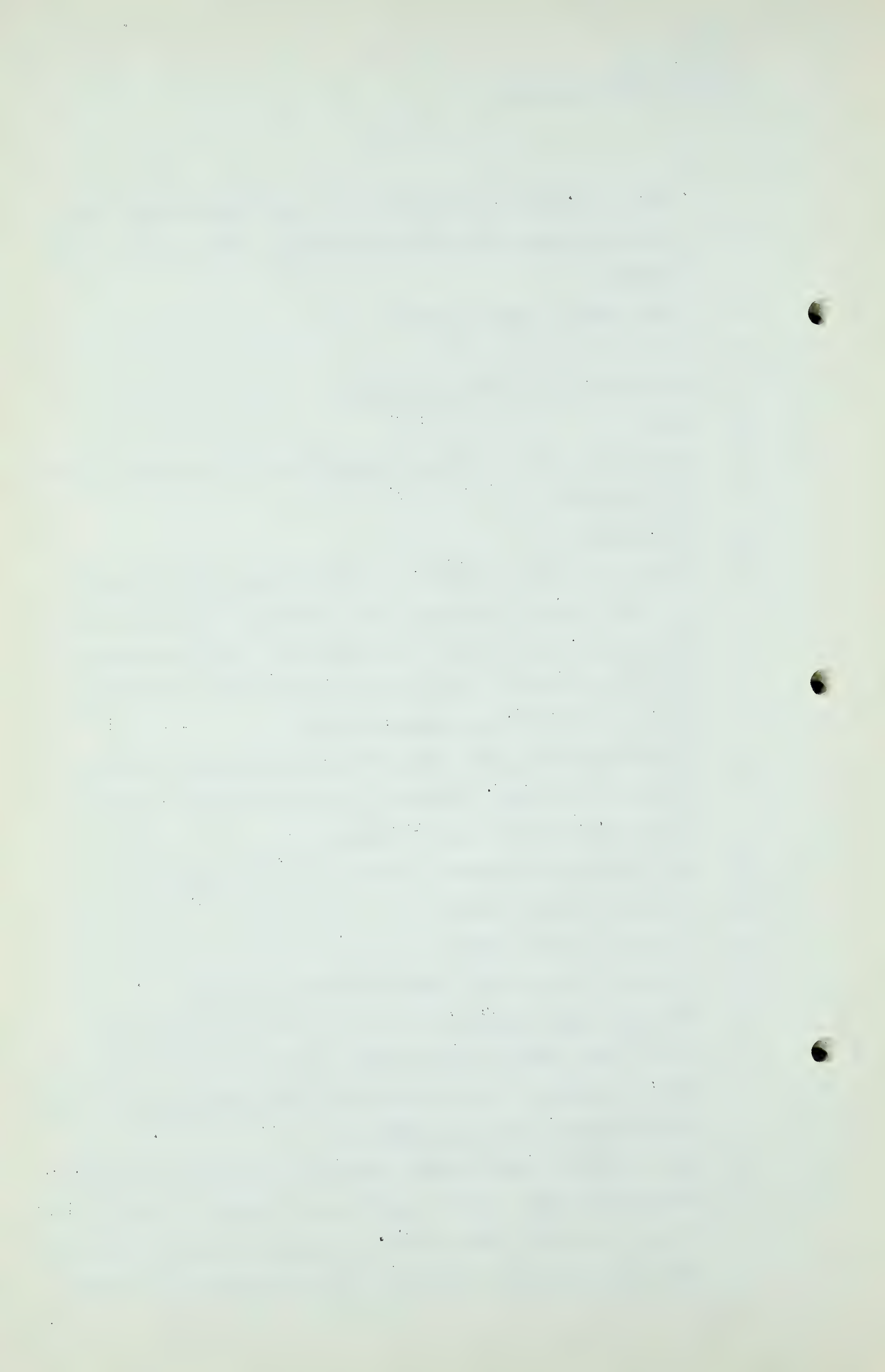
Q It should be the same?

A Yes, you should have a uniform price structure.

Q You would agree with me that if you arrive at \$5.00 gas at any time during that 20 years, that you should give . . . them protection, or you shouldn't give them any protection?

A Both companies should pay \$5.00.

Q Now, I take it that prices internally should be comparable. We have got that, but I want to go a little farther on it. If you are giving them thirty cent gas and then you give them \$5.00 gas, you have not given them the protection that the



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Government requires?

A You mean the local company?

Q Yes, the local company?

A Yes, I would say that.

Q What?

A Yes, I would say that.

Q At \$5.00 gas?

A Of course, that, I don't think \$5.00 gas is right. That is getting up pretty high.

Q You see, I wouldn't thank you for \$5.00 gas?

A I would just like to have a little bit myself.

Q In other words, you tell me prices should be comparable and they should not be increased as a result of export?

A Yes.

Q Now, I say if you get up to \$5.00 gas because your 20-year supply has gone elsewhere, not a surplus but an immediate first reserve has gone, you are not protecting them? Isn't that elementary?

A Sir, you are a lawyer and I am an engineer.

Q Yes?

A Let us get this thing back to where we started if it is possible. Now, you are going from a few cents a thousand to \$5.00?

Q Yes?

A You are making that comparison on this basis, as I get it, that down the road as the production goes down, it is going to cost more money to produce the gas. Is that the only reason why it would cost more?

Q It might be one reason. It is going to cost you more money to produce it because you are producing it from the

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last half of the production?

A All right. But I, in turn, speaking as an engineer, and being particularly familiar with the Panhandle, where your pressure might be 1000 pounds today and go down the road down to a depletion pressure of 50 pounds, and then on your system it might be 400 pounds, I don't know what they operate at, the only difference you are talking about is a cent a thousand to the local utilities or the pipe lines, and either one can stand that increase in price. So that there is substantially no more or no great difference between the production cost of the gas today and 20 years down the road, or the first half of the gas and the last half of the gas down the road. There is no great difference.

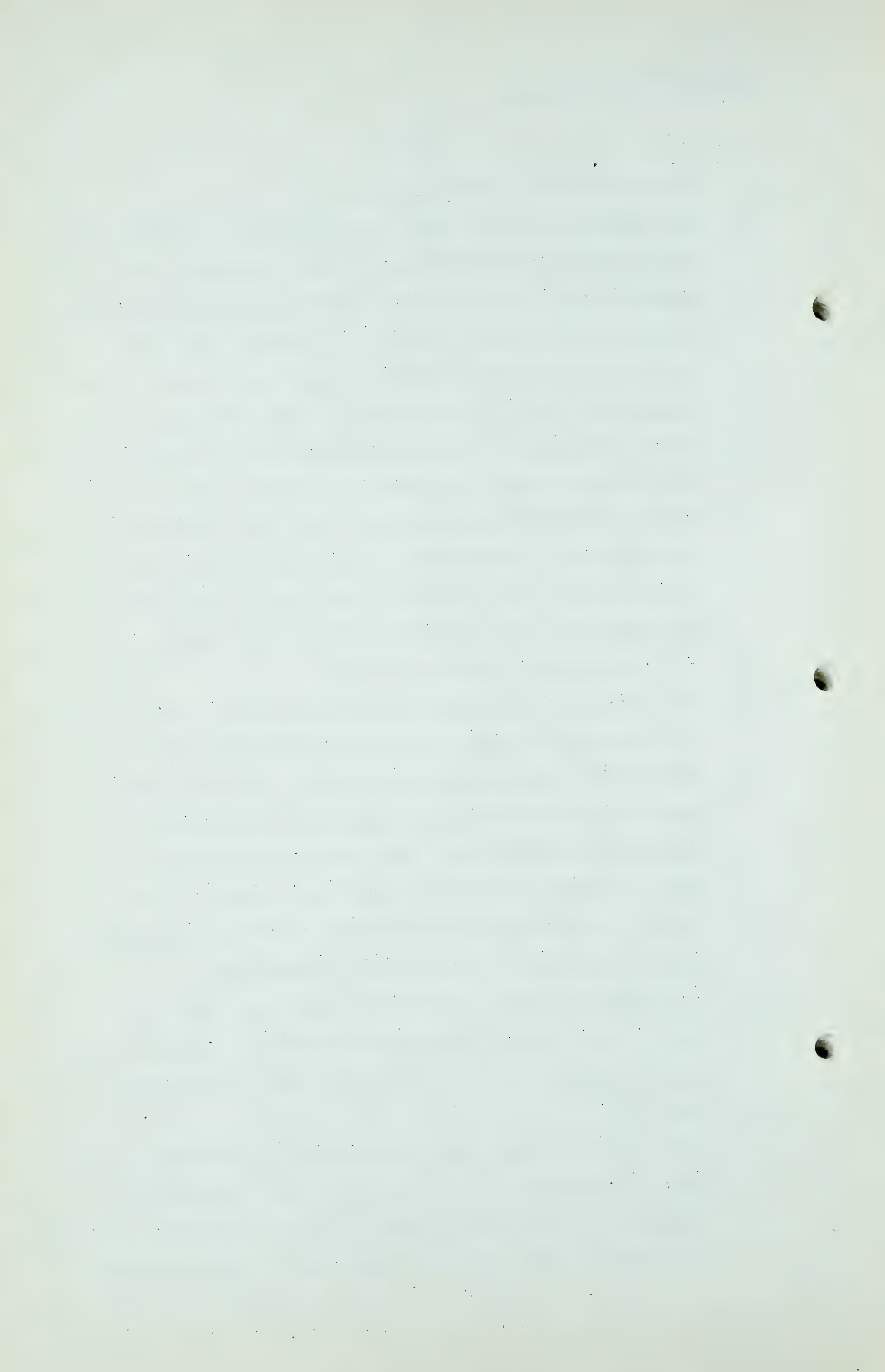
Q On a deliverable basis, peak load?

A It is going to cost you a little more money. You are going to have to put in some compressor horsepower, but it is not going to be anything that is ruinous. And the reason I say that is again because of my experience in building two or three re-pressuring plants back in the Appalachian area, where we took it out of the pipe line and put it into a jug at low pressure and poured it out of the jug to meet peak requirements, and it is not exorbitant.

Q I thought I had kind of a concise question there, but I see you have got me down a side alley for a minute, and I am not going to discuss engineering matters with you.

A Yes, sir.

Q But I was wondering when you made that statement, and when I get your answer I will leave it, about exceptional conditions, and we were talking about ten or twelve thousand foot wells in our limestone formation, or corresponding



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formation, and you have the connate water problem and various other problems. Now, I could go on for a month on that point and probably I would get down to it, but I am going to limit it and ask you one thing, as I don't want to discuss it for a month with you. Were you really thinking about those kind of wells?

A Sir, I was just thinking....

Q Were you thinking about them?

Aseveral types of wells.

Q What is that?

A Several types of wells.

Q Several types of wells?

A Yes, I was thinking about several types of wells, big wells, little baby wells, big wells and little tiny wells.

Q I am thinking about 10,000 or 11,000 foot wells?

A All right.

Q You say at the end of 50 years, you say your production costs wouldn't be much greater or much more than at the end of 20 years?

A I have seen those wells in Pennsylvania where my good friends, Peoples, are, where they have these compressors working and it is economic.

Q Don't you think it would be, the gas here, it would cost more by producing those wells?

A It would cost more than the virgin wells would, but not an exorbitant amount, not too much for the market today.

Q Do you think it would take you 50 or 60 years to get the last one-third of the recoverable gas, to get it out?

A I think it would be good for the Province if it would take that long. You would always have something coming in.

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Q And it would be less expensive?

A It costs more as your wells get smaller, but nothing great.

Q As I understand, the exporter would leave that kind of gas for internal consumption?

A No, quite the contrary.

Q What?

A No, quite the contrary. He would share equally with them.

Q I thought I was just going to get off this and go on to something else. What I am trying to find out here, if you are really going to give protection both as to surplus and price that you have got to allocate reserves, haven't you?

A Oh, yes. I would say, yes, you have got to do what is good for everybody, share and share alike. You know, live and let live.

Q After 50 years I am not interested in everybody, I am interested in the chaps who live in a 40 below zero climate here, and to protect them you have got to allocate reserves, haven't you?

A No. I don't see it that way. Of course, it is just my opinion.

Q I am just trying to find out how you can take out a gas for export, or any other purpose, from the adjacent area, leaving them, and I do not think there is much difficulty in proving that, the very high-priced gas, if you are doing that how are you protecting them?

A I think you are taking care of the local people. I am on your side on that.

Q I hope you are?

A

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A I am on your side.

Q How do you do it?

A How do you do it?

Q Yes? I am still trying to find out about the allocation of reserves, and I am really serious about that, and I cannot find a way of doing it.

A Well, of course, looking down the road, I think what you would have would be a common pooling of gas between the company who was exporting and your local company. What I mean, they would be working together, jointly, and this thing, this is a new word to me, this grid system, they have a master gathering system in which everything would be jointly pooled, and it would be a nice set-up.

Q But at no time should you add one cent to the local consumers' prices if it can be traced to export, should you?

A Well, I would say not.

Q No, that is right?

A No, that is right. I would protect my own people.

Q I see. Now, then, Mr. Fish, at Page 1, at the bottom, "Prairie made such a survey and upon receiving the geological report on the natural gas reserves, which indicated that the reserves were not sufficient" for certain purposes, you say?

A Yes.

Q And then you proceeded to make a statement?

A Yes.

Q I was just wondering if by any chance those geological reports were gathered by you, if Mr. Galloway had anything to do with them?

A No. May I explain the survey?

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Q All I just wanted to ask was the question if we are possibly a little less optimistic than Mr. Galloway is presenting?

A No, I think they are similar.

Q Mr. Galloway in his report shows greater deficiencies for the purposes mentioned here?

A His report will support this brief, or whatever you want to call it, this piece of paper.

Q His is less optimistic?

A Yes. I made the survey, and my survey consisted of coming up here into Alberta Province, Mr. Herring and myself and Tom Jenkins, who is a petroleum engineer, and talking with Mr. Slipper, talking with my good friend Mr. Hawthorn and Mr. Galloway, and we just visited around here and saw all these reports and got copies of them. It was one of those types of surveys.

Q I am not quarrelling with you. I just wanted to know if it was more or less optimistic?

A Yes, sir.

Q Now, Mr. Fish, here again I think you can help me, and I hope you will?

A I do, sir.

Q Having in mind the Alberta Government requirements, and I think the only audible expression or expressed intention of all parties seeking export to fully protect local consumption, I take it, and I wonder whether you agree with me, that we can do no less for local residents than we do for non-residents in the way of protection. That is a fair statement, isn't it?

A That you have got to ^{do} the same for local residents that you

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do for non-residents?

Q At least as much for them, yes?

A Yes, I would say that is so.

Q And amongst the protections that non-residents get, at least with regard to export to United States, is that set out amongst other things in the requirements of the Federal Power Commission, at Page 2, that is, they require complete dedication of proven deliverable natural gas reserves to meet the full market requirements?

A That is right.

Q So that you would expect that we would have at least that for local residents, wouldn't you?

A Yes.

Q Yes? That has to follow from what you have just said?

A Yes.

Q Yes? And protection, including that item we are talking of, reserves, means economic reserves, doesn't it? And here again I say that \$5.00 gas is nothing. So that we require, it necessarily follows, if we carry the chain of logic through, the economic reserves, that is what is meant in those words?

A Where do you read that?

Q On Page 2, "The Federal Power Commission requires the complete dedication of proven deliverable natural gas reserves to meet the full market requirements." Have we got that?

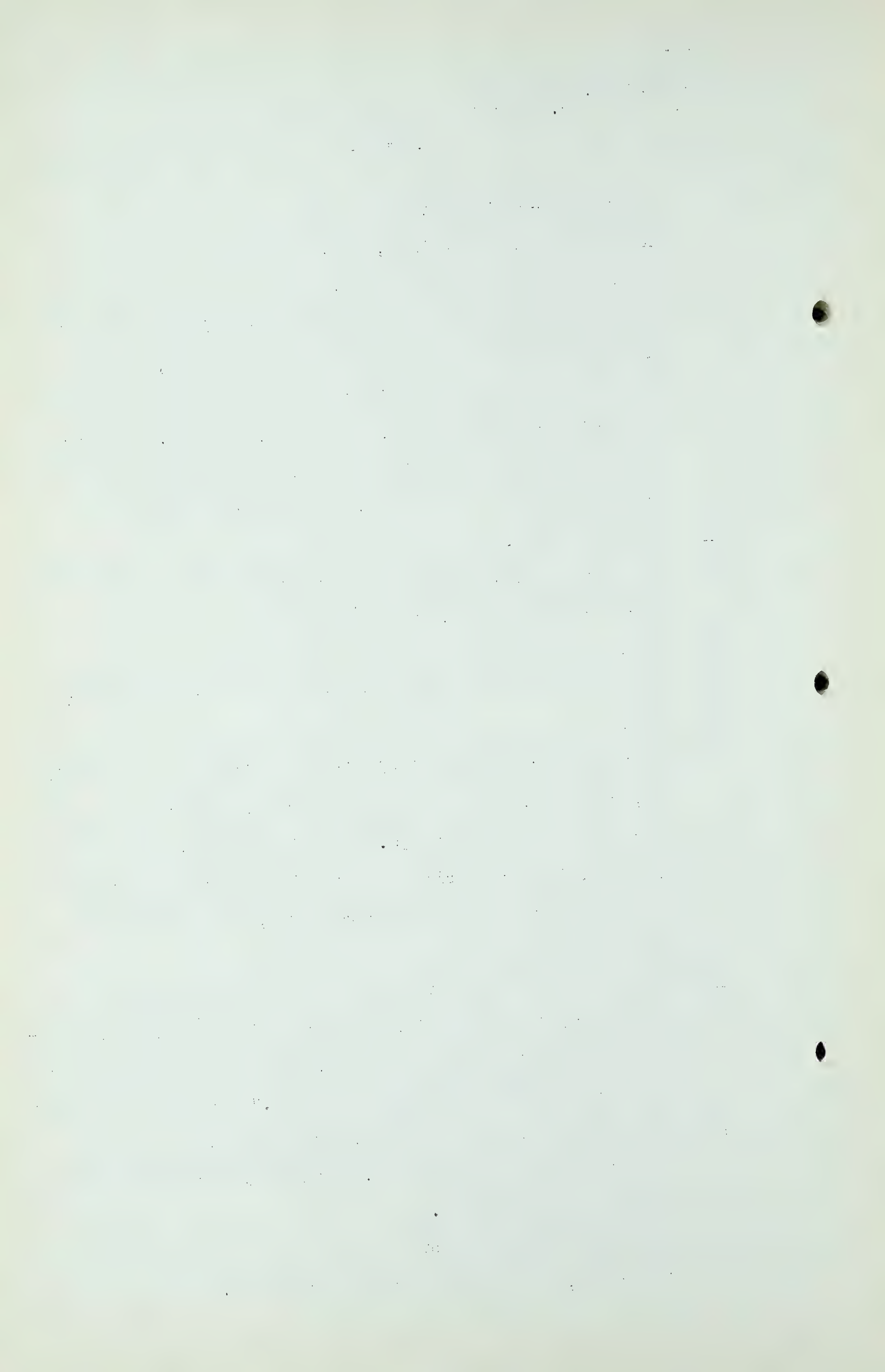
A Not right now. Let us take it one by one?

Q I don't want you to back up. Everybody backs up on me?

A Well, let us go ahead.

Q I am following that up?

A All right, you follow it up and go ahead.



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Q All right.

MR. C. E. SMITH: You are playing on the same side. You had better get a new quarterback, you are getting your signals mixed.

A I thought we were on the same side.

Q MR. FENERTY: Every time I think I am getting somewhere with my questions people start backing up. Perhaps if I ask you and refer you to it you won't back up on it?

A I think I know what is good for you people.

Q Let us go on?

A All right.

Q Now, in order to give protection both for export and for internal consumption, I take it that you must have deliverability both as to volume and peak load for everybody? That is, if you are going to use gas you have got to have deliverability?

A Yes.

Q In other words, I am talking about delivering the gas instead of the gas in place, that is elementary?

A That is your statement, not mine.

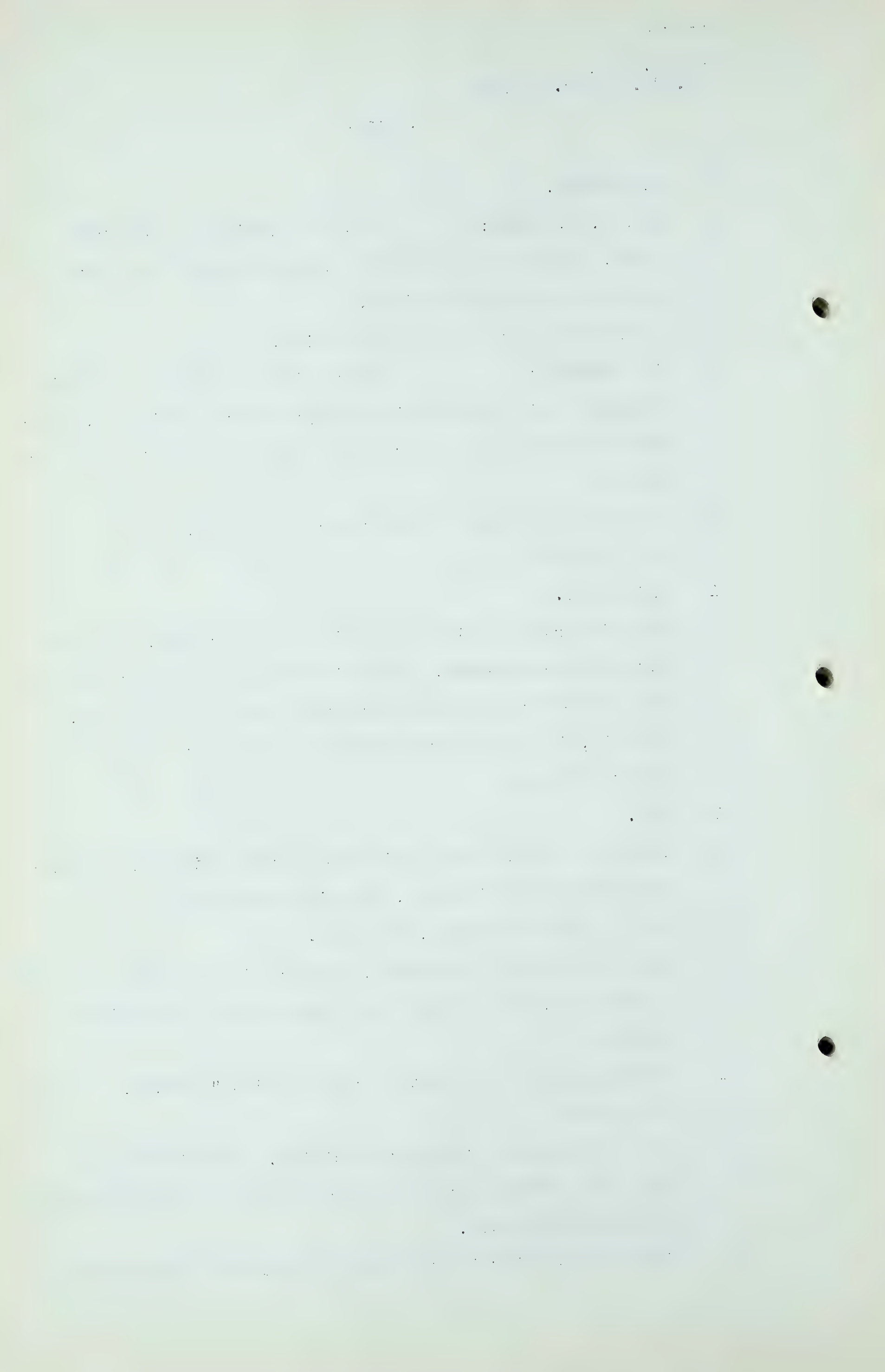
Q I am not making a statement, I am raising my voice, and when I raise my voice to speak that means that I am asking a question?

A I cannot answer that with a "yes" or "no" answer.

Q You cannot?

A No. It would not fit this condition. I would have to make you a little speech on that point, and you are making the thing difficult.

Q When I am sitting in my house and it is 40° below zero I



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have got to have deliverability, haven't I?

A I cannot answer that "yes" or "no".

Q That is fair enough?

A We are talking about deliverability.

Q I just want to ask you if you have to have deliverability, if you say you do not have to have it I will pass to something else?

A Well, if I may pass on to something else quickly?

Q Yes?

A Here in Alberta Province you have a gathering system, a pipe line system that is already in, and the local utilities have an investment in it. They have already that pipe line to your house. They do not have to build it to your house. That was a big cost. They went into that deal on the basis that they considered it an economic and feasible problem, and they built it from the field to your house. They were satisfied with deliverability, and they further considered that the gas would be deliverable, and their reasoning was different to that of a pipe line system like the Pacific Northwest and the Prairie, as in the Pacific Northwest and the Prairie you are talking about a \$200,000,000.00 investment, and you are not talking about 300,000 or 400,000 people at all but about 3,000,000 or 5,000,000 people as well as industries, therefore, that gas, or the cost of it, in order to justify that investment, in order to make that investment, in order to let the insurance company take that risk, it should be deliverable.

Q Yes?

A Whereas you have the local utility here, the installation of the utility, their money is already invested.

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Q Yes?

A So that your problems are not comparable?

Q But don't they have to have deliverability of supply in the winter time?

A Surely, they do.

Q You both have to have deliverability?

A They should be a good operating company and they should make that gas deliverable.

Q When you said that your two problems are not comparable, I agree with you, but am I not stating it fairly, the two problems, you have got to consider deliverability for 50 years and you have got to consider the time it takes to amortize the bankers' investment in a pipe line?

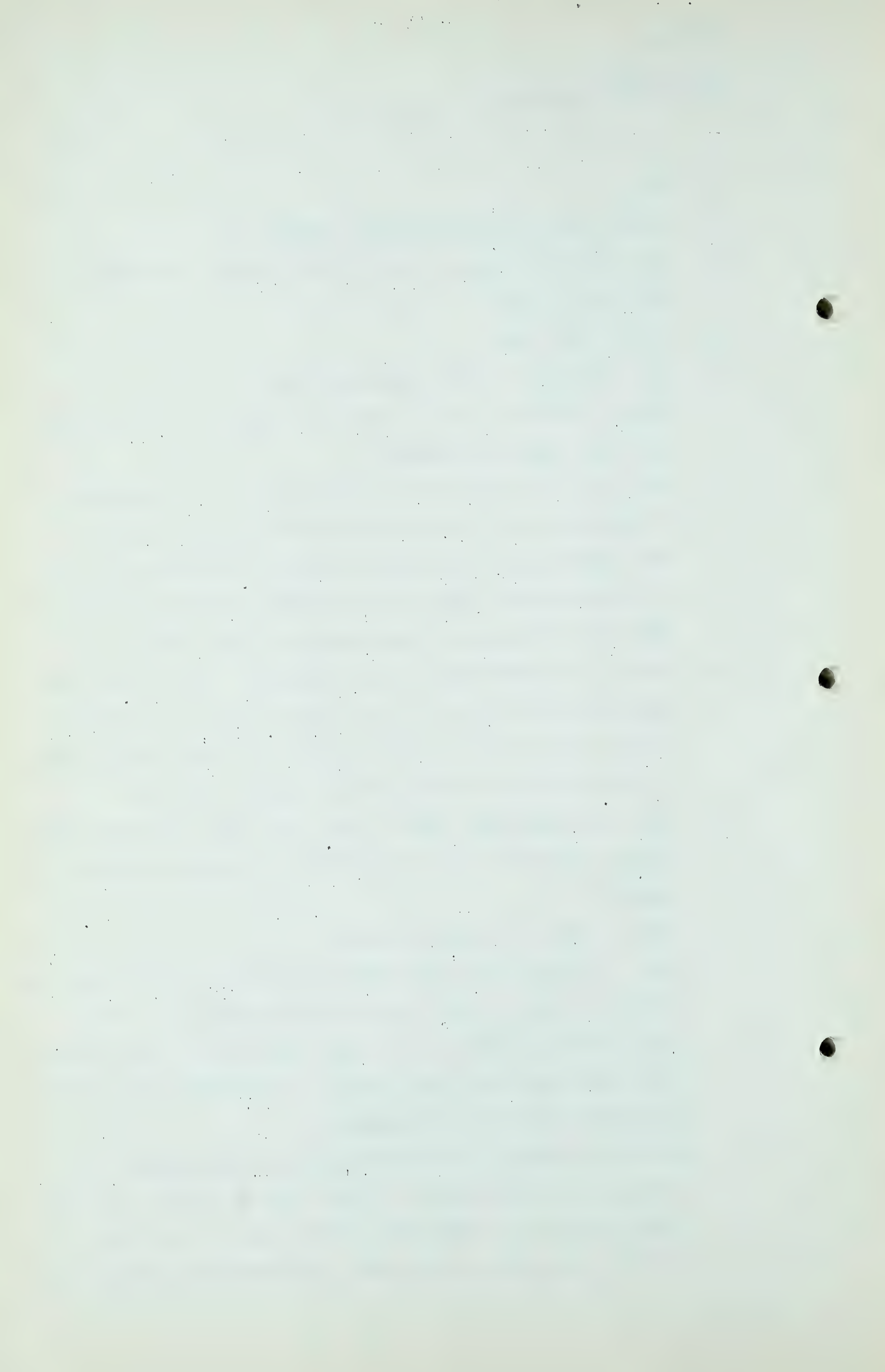
A That is the difference in the problems. Do you think the local utilities should go out now and drill from 50 to 100 wells? Do you think they should go and drill that number of wells and not use them for 50 years? I do not.

Q The one advantage I have on you, Mr. Fish, is that I can ask you questions and I do not have to answer yours at the moment.

A This is like a debating society.

Q Yes. I almost told the Board I would not be more than five minutes, so that I will cut my cross-examination down. Now, keeping it down, in the last analysis you have got to have pipe line gas, that is what I am talking about, both for export and local consumption?

A We are not asking for deliverability on the minimum of 100 million cubic feet of gas per day. We say we will take our chances on the gas being deliverable. Your local utility does not need 50 years' deliverability, there is no



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question about that.

Q I know that, and I am telling you again that all my questions are not directed to your particular application?

A I realize that. We are on the same side after all.

Q But I am trying to get at that?

A Yes, sure, and I am just trying to explain.

Q I am trying to get at the local consumption, and asking you with regard to it?

A And I am just trying to give you my views.

Q You have got to have pipe line gas. Any expert will go that far.

A There is no use building a pipe line unless in our opinion there is gas to put into it.

Q Yes? The first thing that you have got to have is the gas?

A Yes.

Q And it has got to be pipe line gas?

A Yes.

Q And when it comes to gas for export you have got to be able to compete on the tidewater with fuel oil from California and perhaps somewhere else, or with something else?

A Yes.

Q And you have got to compete on the price?

A Yes.

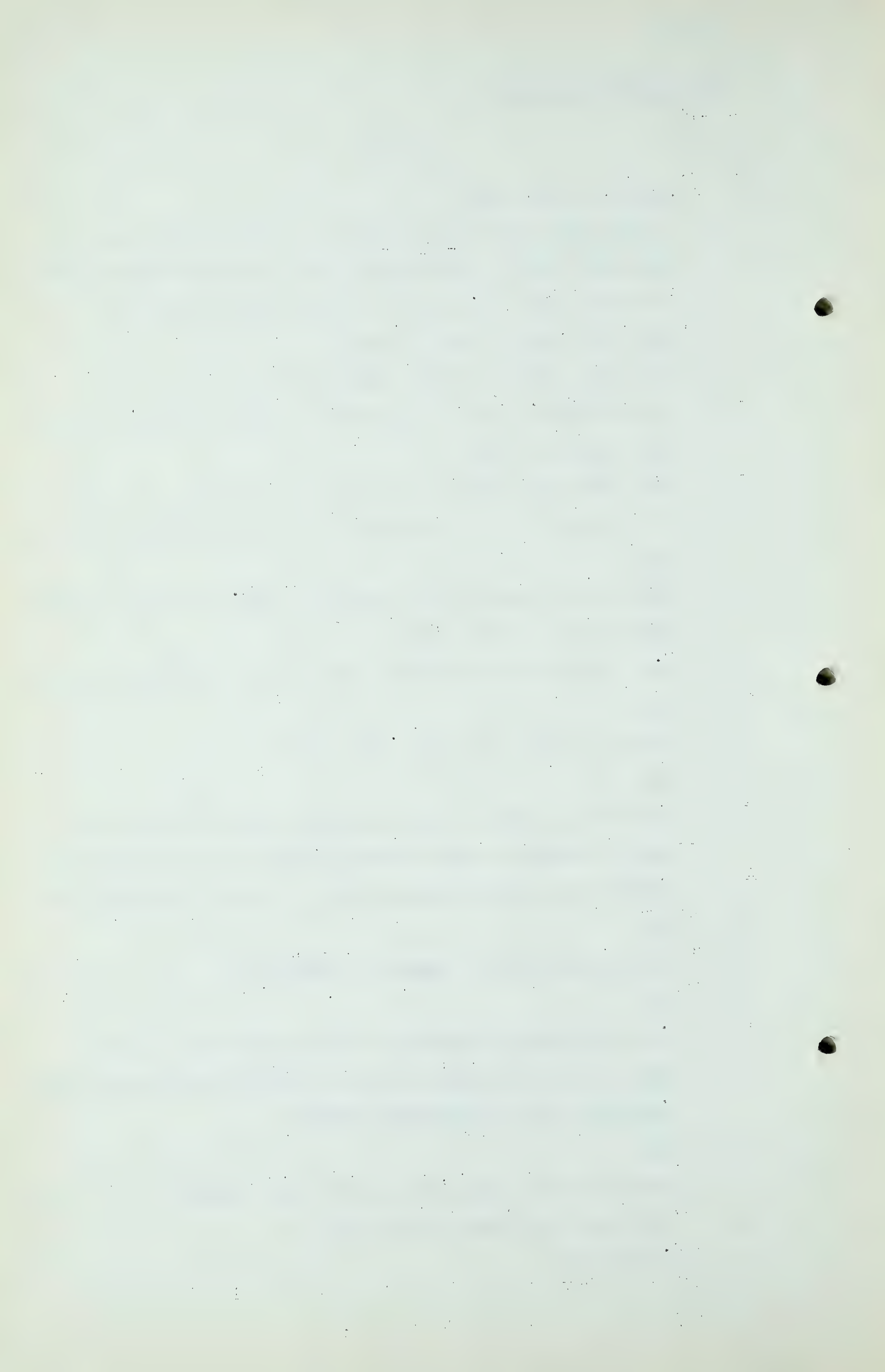
Q And if you are not going to have any increase in the price of gas for export, and for internal consumption, you have got to have comparable prices?

A Yes.

Q After you have taken off your 20 years' supply?

A I just do not follow you on that.

Q You do not?



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A No, I was trying to get your particular point, but I cannot get it.

Q I think you have been following me too quickly this time. I might be quite wrong about that.

A Let us go slow on this, and I will make myself a few notes, and then I may be able to understand it.

Q It is committed to local consumption both as to reserves and price?

A I disagree with you, sir.

Q And neither one of us will decide it?

A That is right.

Q That is what I think. You will agree with me though that there should be no increase as the result of export, and prices should be comparable?

A You are doing something for the good of your Province up here. The only reason that this Commission, or you, yourself, as a good citizen of Alberta, would let gas go out of here, would be after you have enough natural resources to meet your home use. It would be good for the economy of your Province up here itself, it would be good to have more income coming into your Province..

Q Let us get down to being practical?

A All right.

Q I am not being paid in this Inquiry to be a good citizen, I am being paid to see that the people do not pay more for gas as a result of export.

A How much are they paying up here for gas?

Q Does it matter?

A Yes.

Q Where is the Gas Company?

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MR. S. B. SMITH: Let the City of Calgary tell us.

Q MR. FENERTY: It is 30 cents or something like that.

A It is cheap gas.

Q Do you think that is the reason we should pay more, as a result of export?

A I am not saying you should pay more. Export, in my opinion, would not increase your price.

Q I hope it won't?

A It won't increase your price.

Q I hope it won't.

A I mean that Prairie won't increase your price.

Q How can you insure it won't? Somebody has got to pay it. I have got to have the evidence of somebody that will prove it won't. That is what I am worrying about. I am perfectly frank about that.

A If I could buy into the local gas utilities I would have something to say about that, and I might be able to assure you about that. However, I do not own anything in your local utility, and I know nothing about your local utility management, and that is why I cannot assure you.

Q That brings me down to the point that I am trying to get at?

A Yes.

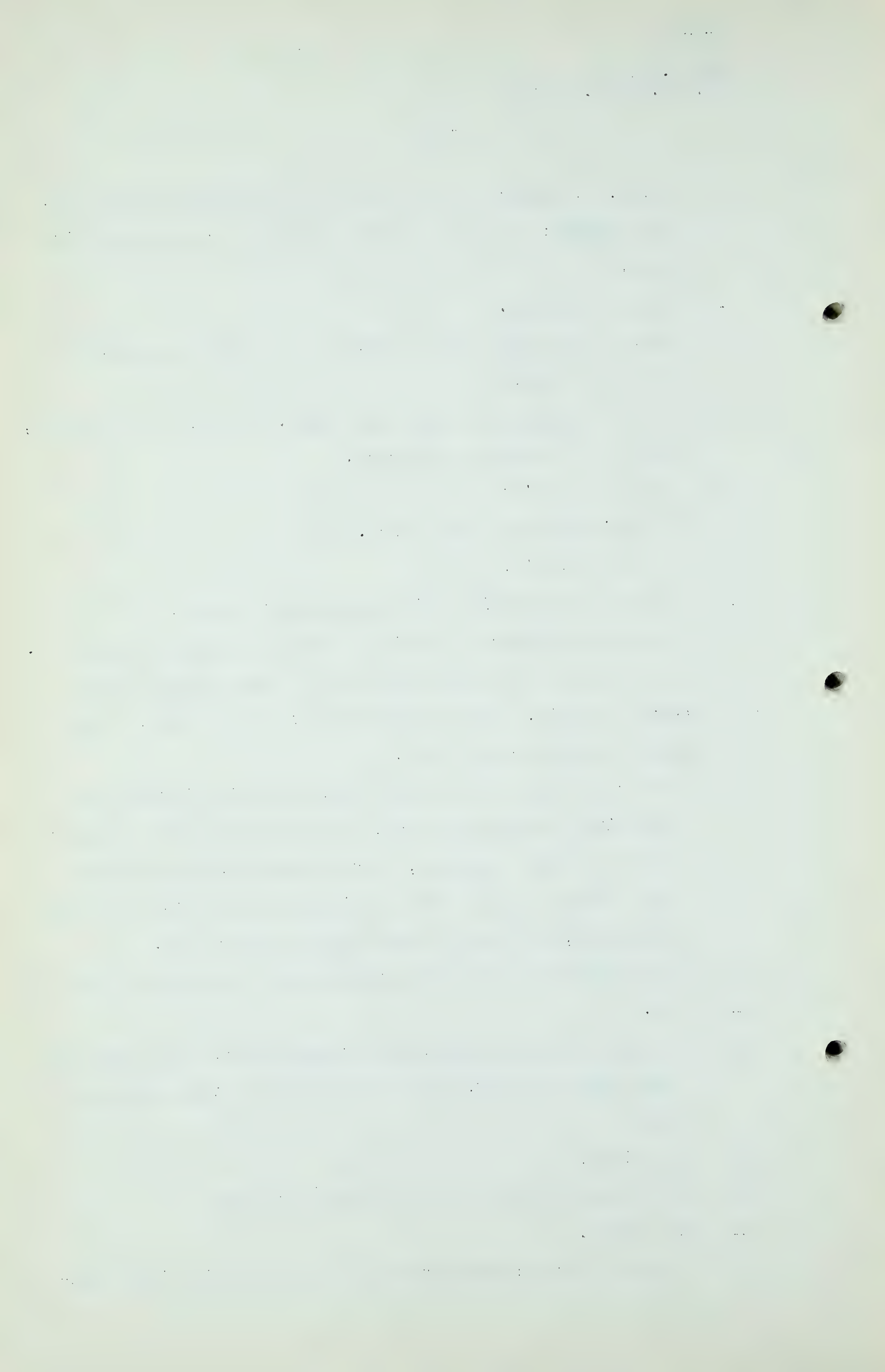
Q As I can see this thing, we have got two problems from the local point of view, and I am going to be very narrow on this?

A All right.

Q I am talking about the local point of view?

A All right.

Q I have enough troubles with them without going into some-



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body else's troubles. One is that there is going to be a deliverable supply if this thing is to be put into effect for local consumption both as to volume and peak loads; the other is that it is going to be at a reasonable price, and I have been expecting someone some time to deal with that half of it, that is the price, and I cannot get anybody to deal with that, I cannot get anybody to deal with anything but the first half, and that is the supply, and I am going to suggest to this Board with whatever force I have here, that somebody, sooner or later, has got to prove that we are not going to be hurt in price as the result of export. I do not say that we are, but I do bring it to the attention of somebody, and I hope somebody will be able to tell us something about it. You cannot tell me with regard to that?

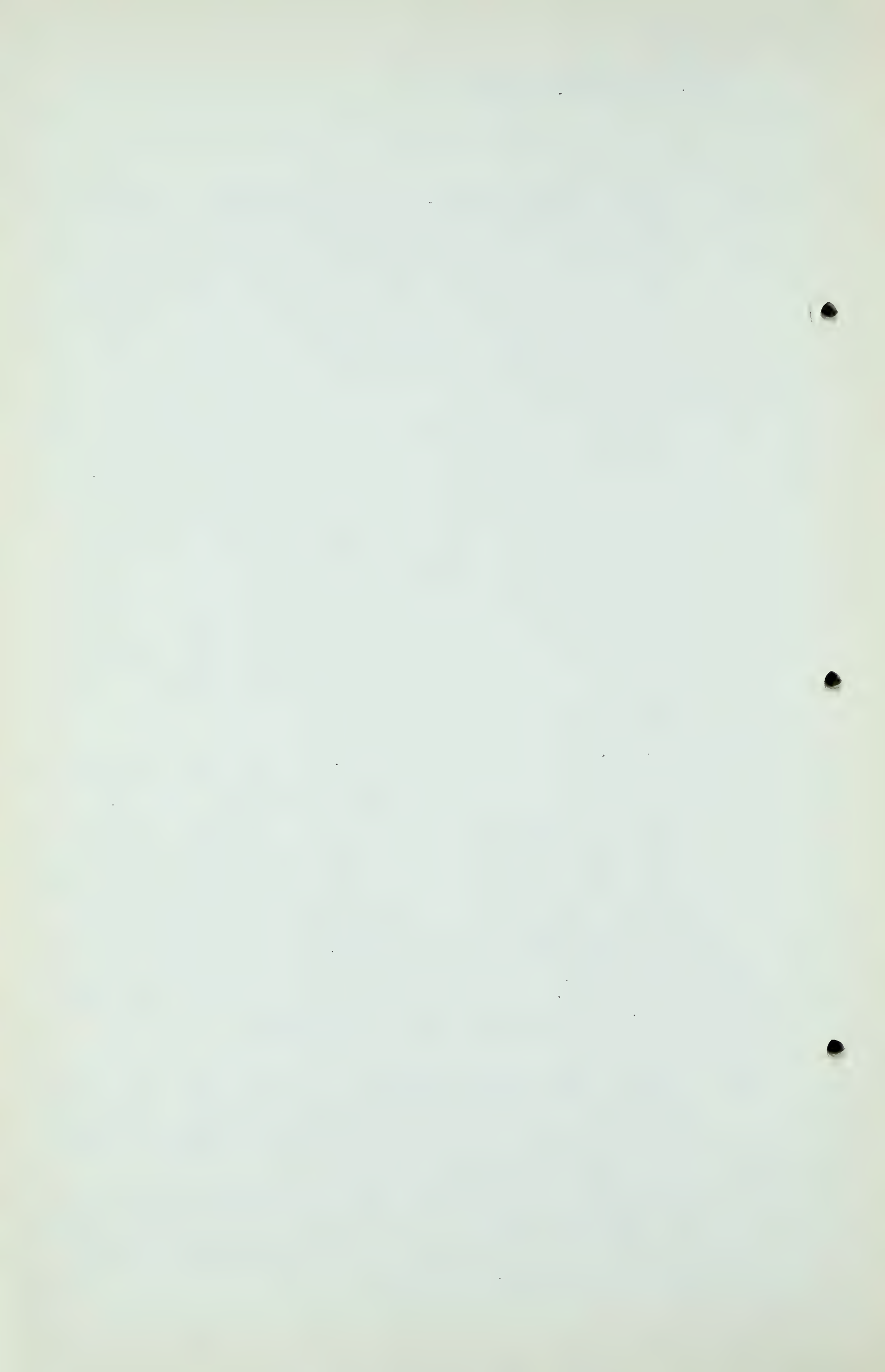
A Oh, no, I cannot tell you that. I cannot tell you that, I agree, and I do not think anybody else can. You are looking ahead again 20 or 30 years. You are looking ahead as to what gas might be delivered. In turn, I think that this Province, like any other part of the United States, or of any part of the Old World, should be aggressive and progressive. We should not go back to the horse and buggy days, but we should forever go forward.

Q Yes?

A Again it comes down to doing the most good for the greatest number of people, and these pipe lines are doing it today.

Q Yes? Well, I think they do help.

A We should not be selfish in our particular instance locally but rather we should be broad in our viewpoint. That is what we are doing.



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Q If you are going to put your application on an altruistic basis, I am afraid I should not even be asking you anything. I really did not think you were going to. Now, then, one more question?

A Yes, sir.

Q Wouldn't the kind of thing that the Federal Power Commission insist on, that is, the dedication of reserves, wouldn't that give us what I have been trying to find out?

A Do you want me to tell you?

Q Yes?

A I don't mind, I do not mean to be beating about the bush on this, I mean to make you a direct answer.

Q Yes?

A You have here a comparable situation to what you have, I think, in the States.

Q Yes?

A What I mean, the Province of Alberta, as I see it, is like the State of Texas.

Q Yes? Do you mean that?

A All right, the State of California, we can take it as that.

Q I did not expect a man from the State of Texas to make that statement?

A Well, I was going to qualify it.

Q But, in the result, can you suggest anything better than that?

A Oh, yes, sir.

Q I mean....

A I mean, what I mean is this, that the Province of Alberta is a gas-producing Province.

Q Yes?

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A It is comparable to a gas-producing State?

Q Yes.

A Now, as far as I know, all the gas-producing States of the United States, any that I know, they have within that State a Public Service Commission that tells the public utility what to do. The Federal Power Commission does not tell any gas-producing State what it is to do with regard to its local utilities or with regard to its local supply.

Q Yes?

A And I do not think that you, as a citizen of Alberta Province, would want the Dominion Government coming in here and telling you what you are going to do here in this Province. I know, that we, in the State of Texas, would not want the United States to come in and tell us what to do.

MR. C. E. SMITH: There is a meeting about that in Ottawa right now.

A The Federal Power Commission would not tell the people or the local utility of any State what to do.

Q MR. FENERTY: I am assuming that the Federal Power Commission is founded on good sense?

A That has to do with regard to inter-State pipe line.

Q The inter-State pipe line and the production required by the same?

A Yes.

Q If this kind of an undertaking is to go on, and you have already agreed with me, that is, that we should certainly have as much protection as it is possible?

A On inter-State connection.

Q That is what this is, is an inter-State pipe line. Now,



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can you tell me how you can get better protection than by an allocation of reserves? Or have you? If you did, I did not quite grasp it?

A I would be glad to tell you how you should get it.

Q I thought you had?

A I do not know whether you had the equivalent of the Public Service Commission in the Province of Alberta.

Q Yes, and a very active one?

A To protect the people of the Province.

MR. C.E. SMITH: Mr. Chairman, Mr. Fenerty and Mr. Fish, I think this would be a good time to adjourn, and we could go out and have a cigarette.

A I think it would be an excellent idea.

MR. FENERTY: Well, in view of that remark, I won't ask you any more questions. Thank you, Mr. Fish.

A Thank you.

THE CHAIRMAN: We will adjourn for a few minutes.

(Hearing resumed after short adjournment)

(Go to Page 127).

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MR. S. B. SMITH: If everyone has cross-examined
Mr. Fish I have no further questions to ask.

MR. MARTLAND: I have some questions to ask
Mr. Fish.

CROSS-EXAMINATION BY MR. MARTLAND:

Q Mr. Fish, is it correct that Prairie Pipe Lines and
Prairie Transmission are both now subsidiaries of Pacific
Northwest Pipe Lines Corporation?

A That is right.

Q And Pacific Northwest Pipe Lines Corporation is an American
corporation, incorporated in Delaware?

A That is right.

Q I noticed in the application originally filed by the
Prairie on April 11th, paragraph 2 reads:

"The control of the applicant company is now and will
be after the completion of its financing, in the hands
of Canadian citizens who are resident in the Province
of Alberta and other provinces in Canada. The appli-
cant is not now, nor will it become the subsidiary of
any foreign corporation."

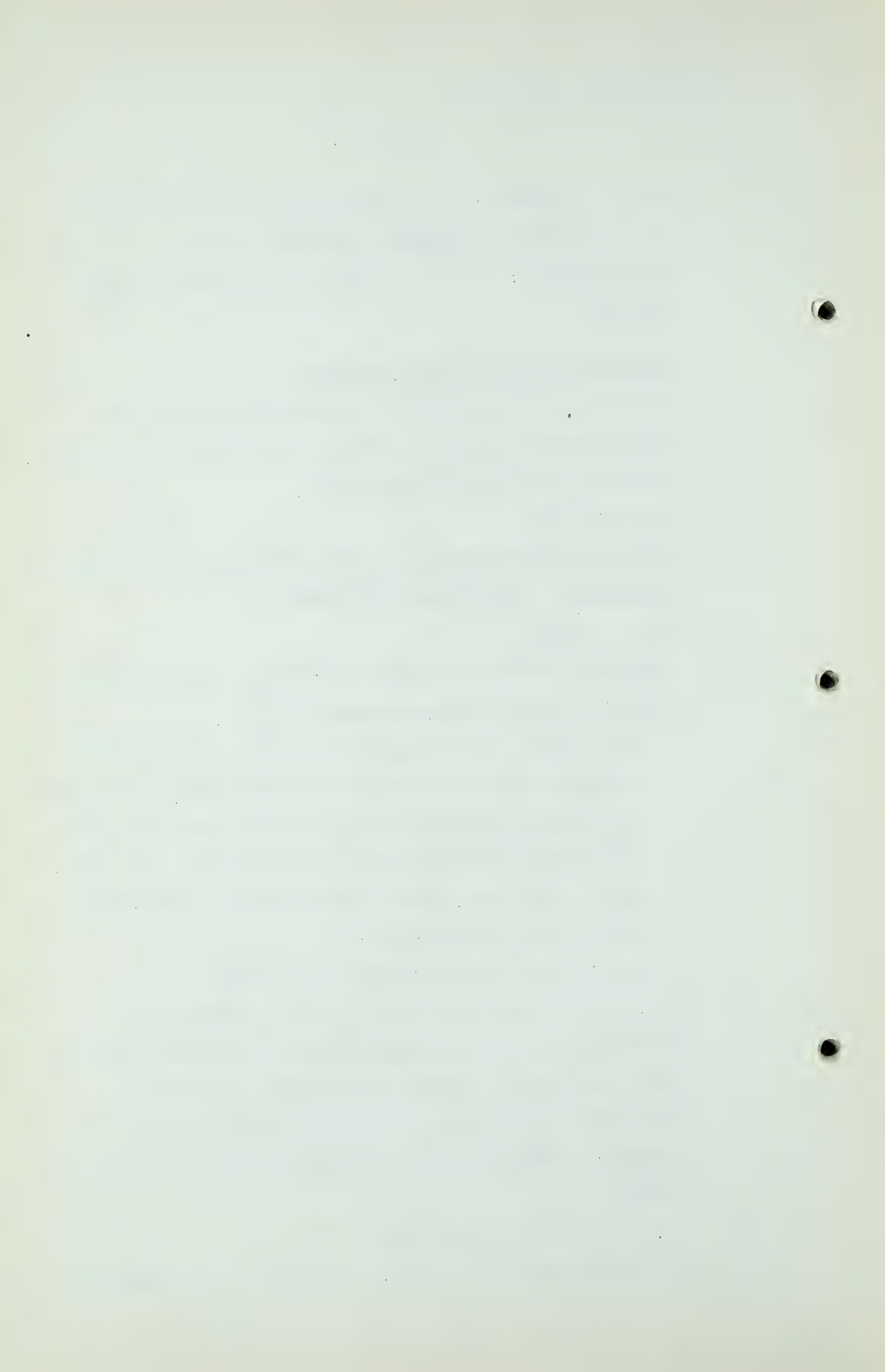
I take it that that policy has been changed?

A Yes, sir. I would say that is right. However, the
stockholders of both, numbering in the neighbourhood of
40-odd are now stockholders of Pacific Northwest.

Q Apparently their views as to the desirability of not
becoming a subsidiary of an American corporation must have
changed?

A Oh, I think it did, yes, sir.

Q Do I understand that in your submission it is suggested



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that that change of opinion occurred because of the survey that was made by Prairie?

A That is my general understanding, that when finally it was determined what the gas reserves were, and - - let me see what I put in there so I can follow it in some manner.

MR. S. B. SMITH: On page 1.

Q MR. MARTLAND: There is reference to a survey, Mr. Fish, at the bottom of the first page of your submission?

A Yes.

Q And I understand, correctly - -

A That and the policy established by the Government up here.

Q Correct me if I am wrong but I understood you to say in answer to a question by Mr. Fenerty that the survey that is referred to in that of course was a survey that was made by yourself?

A That is another paragraph, sir. We will have to go to another page. Not that particular one. That survey was a different survey than the Pacific Northwest.

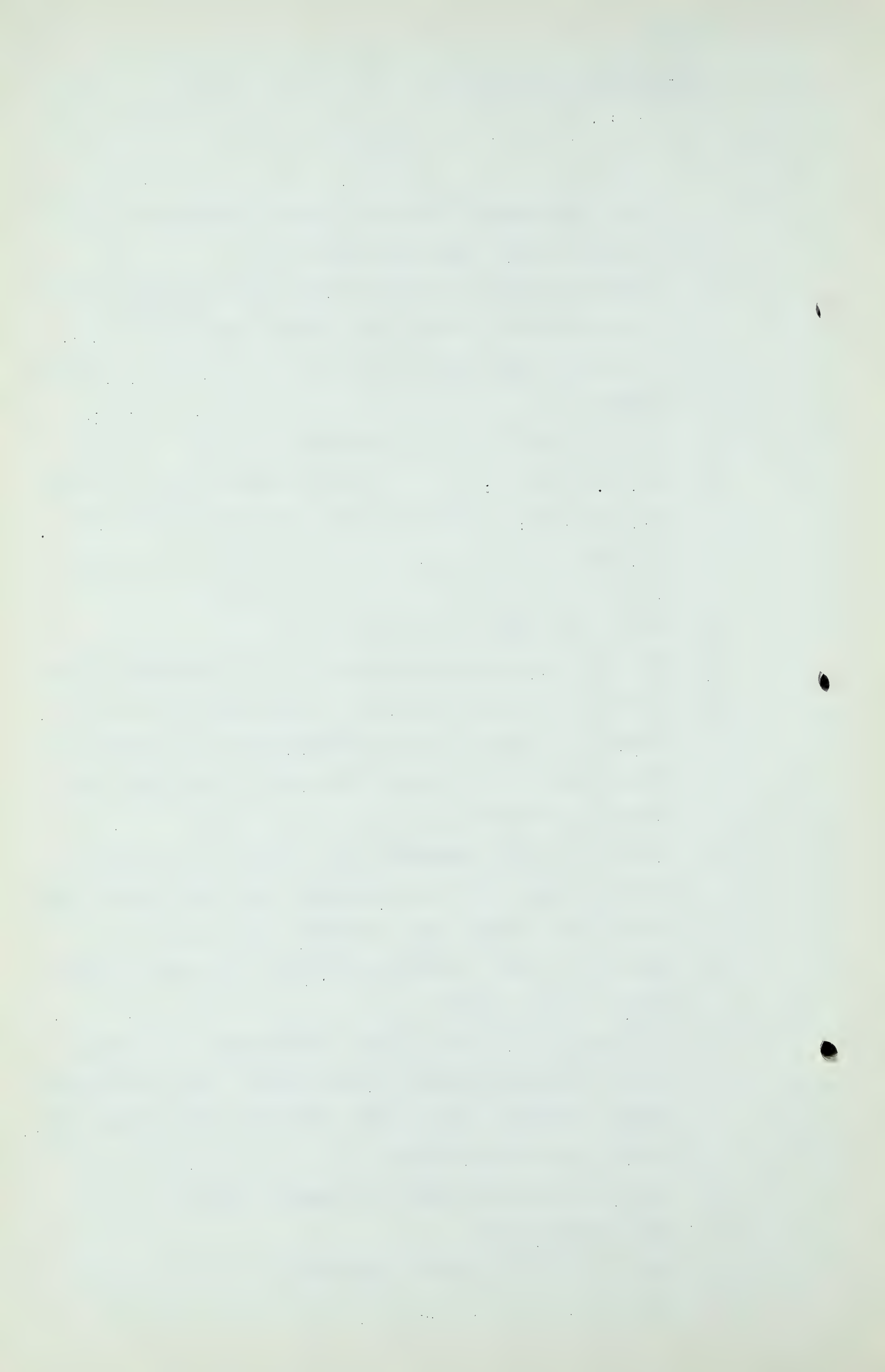
Q Now, let me see. I believe my friend did refer to your page 1 survey there?

A It is around here some place. There were two surveys made. The Prairie made one and Pacific made one independently, because I came up here with Mr. Herring and some of our other staff members.

Q Can you tell me who made the Prairie survey?

A Mr. Galloway here.

Q That is what Mr. Fenerty asked you?



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A Mr. Galloway made the geological report for Prairie.

Q And that is the geological report that is going to be put in as an exhibit here.

A Yes. My survey was made before I knew of Prairie.

Q In your evidence yesterday and in your submission you referred to the necessity of providing for a 40 to 50 years' requirement for the Province of Alberta. Then you estimated that requirement at 3.9 trillion cubic feet?

A Yes, sir.

Q That, I take it, is purely on the basis of multiplying by 50 the 78 billions, which requirement was estimated by the local companies?

A Yes, sir, we thought the local companies would know more about their own business than we did.

Q And that, as you know, is the estimate for the year 1960?

A Yes, sir.

Q And you are just taking that and multiplying it by 50?

A Yes. We used the estimates made by the local utilities.

MR. C. E. SMITH: You do not mean he multiplied it by 60?

Q MR. MARTLAND: No, by 50. Now I am going to refer to a statement you made yesterday, and I am referring to page 19 of the transcript. I do not know whether you have it before you?

A No, I do not have it, but if you would read it.

Q There is a paragraph there which says:

"The gas transmission system of the Pacific Northwest crosses and intersects practically all the



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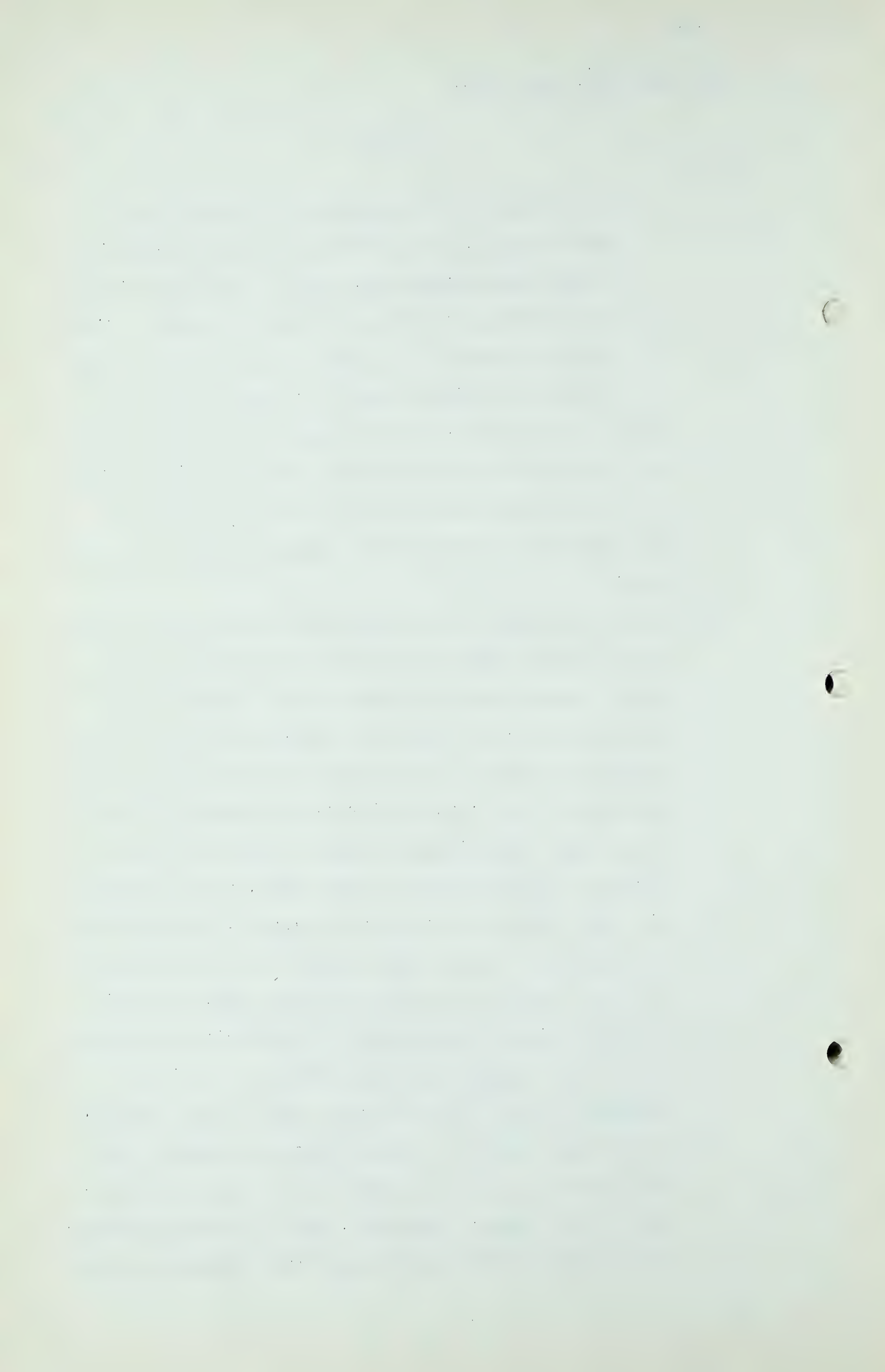
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"major natural gas transmission systems in the United States, all of which are future potential markets for natural gas, which, if the development of natural gas reserves in Alberta Province proves to be as extensive as some have estimated, offers a future unlimited market for Canadian gas."

I just want to ask you with regard to that, Mr. Fish, this question, it would be your view there is no doubt as to future markets for the gas in the Province of Alberta if we find it in the volumes which we hope we will?

A Pacific Northwest could make such markets available. At the present time we have been contacted by one of these transmission lines and in fact another one is talking to me that they would probably be interested in buying gas from me. Now I personally, and some of my associates, went into the Pacific Northwest to plan a natural gas transmission system to serve the Pacific Northwest from the United States. Now, at the present time that system, as originally planned, has expanded considerably. We have now offered to us and available to us not only the 350 million cubic feet, the estimated 350 million cubic feet for the Pacific Northwest but we have a market that was offered to us in the neighbourhood of 1 billion cubic feet of gas per day.

Q I think you referred to that in your evidence. What I am getting at is, as I understand it and as I understood your evidence yesterday, some of these big transmission lines which were brought into operation in the



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20's are now in the process of looking for extra gas?

A They have enough gas, I would say, to serve them for their present requirements for as long as say 20 years still. But they have a tremendous investment, and to protect their investment they are all in the market to purchase additional gas to add to the volume they have and therefore to make it last another 40 years, which is very good clear forward thinking.

Q And at least two of them have approached you?

A Yes, one, and the other, shall I say, is kind of flirting with us.

Q Would you expect every pipe line head will be anxious in the future to acquire additional reserves of natural gas?

A Yes. The Presidents and heads of many natural gas transmission lines are friends of mine, or I know them quite well, and there has been a lot of discussion whereby there is a great deal of interest shown by all of them.

Q Gas is a highly desirable fuel and people on this continent are going to continue to want it?

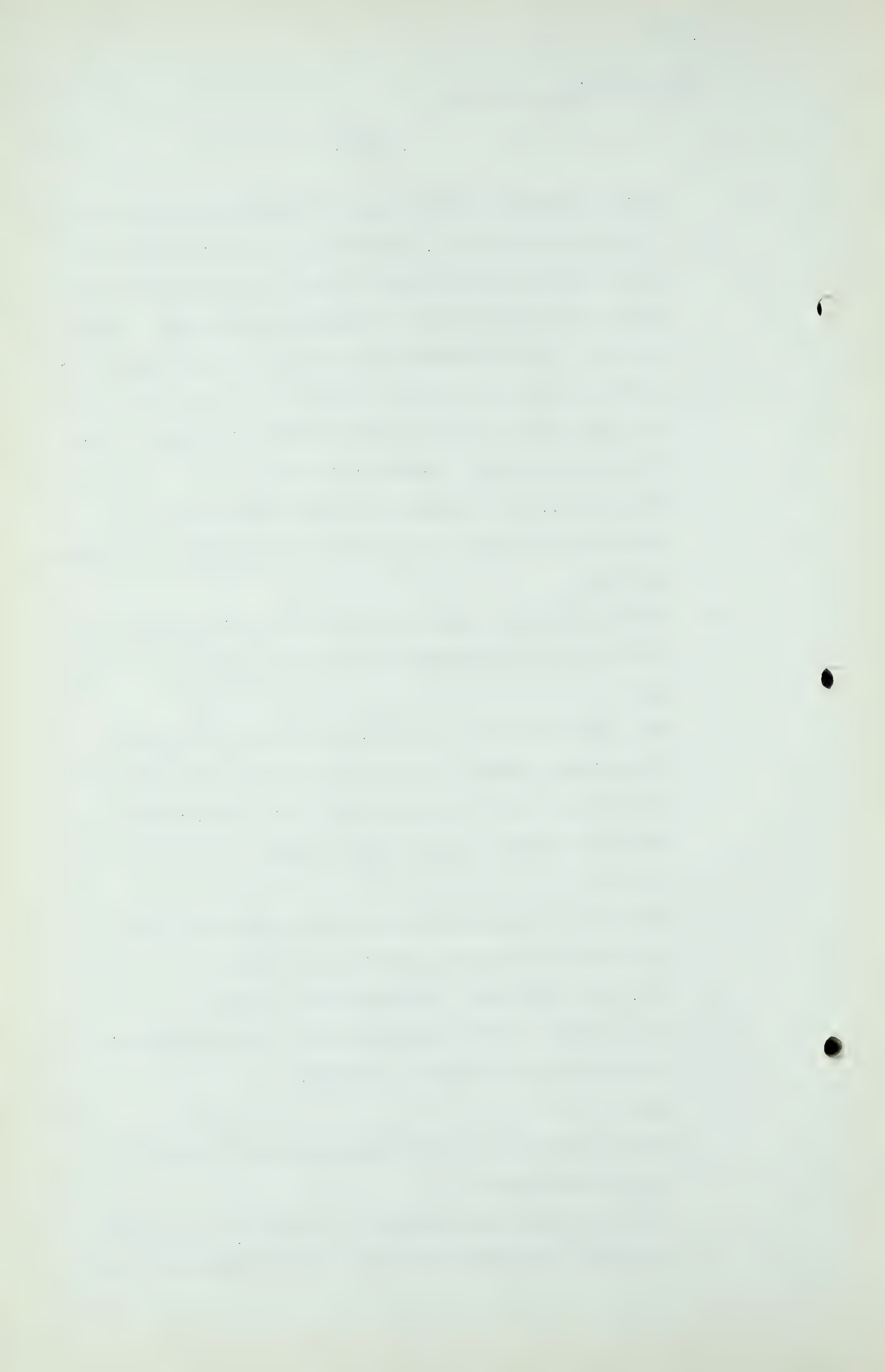
A Yes, sir, they are. There is none better.

Q Am I correct in understanding that your proposed line out of Alberta is of 24-inch diameter?

A Yes.

Q And can you tell me what volume you can take through that 24-inch line?

A A 24-inch line with compressor horsepower, you could transport from 250 to 275 and even 300 million through



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that particular line by adding a little horsepower.

Q And you would not be building a 24-inch line into Alberta to take out 100 million cubic feet a day?

A We are prepared to take any gas that is surplus. We are prepared to take it, whatever the Alberta Government or Alberta Conservation Board declares is surplus. Now probably I am one of the world's greatest optimists and I think the Province in a very few years could develop a reserve of 30 trillion cubic feet of gas. All that is required to do is a little bit of drilling and development work.

Q There is no doubt that you are not building that line just for 100 million cubic feet a day? It is with the idea of acquiring more gas, that you will be able to get much more?

A No, if 100 million is all that comes out of it, we will be happy.

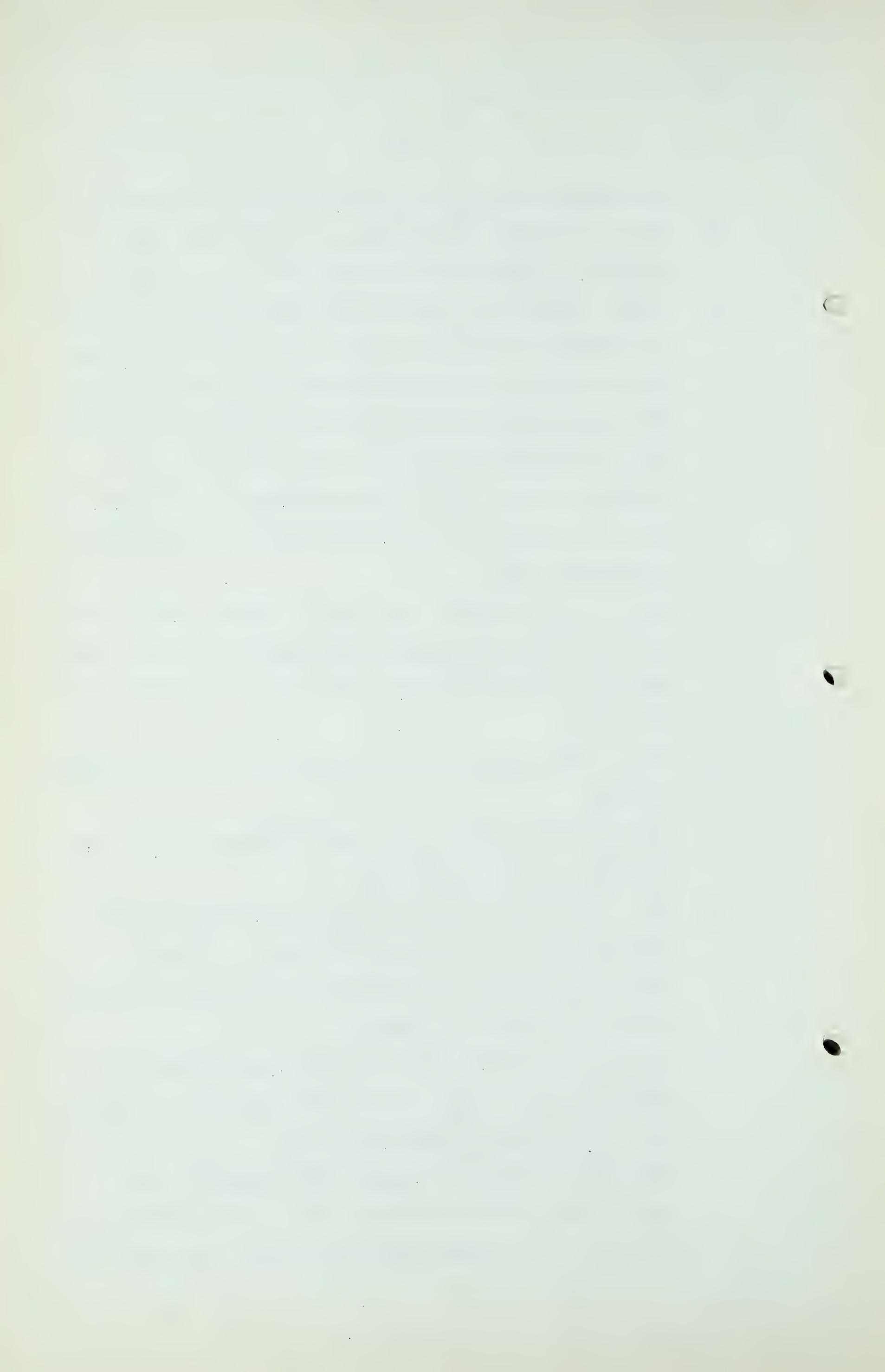
Q And would you have put in a 24-inch pipe line just for 100 million cubic feet a day?

A Yes. And there is another thing in connection with the natural gas transmission business. I think it would be good business to build a line of that nature because it makes good storage.

Q And you would still build that line even though you were only going to get 100 million cubic feet a day?

A Yes, we would still build that line.

Q You have given us some figures with regard to the cost of the system in Canada, that is from Southern Alberta to the Canadian-American border. Are you



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putting in figures, Mr. Fish, with regard to the cost of that portion of the line which extends south of the border to your main line coming from Texas?

A No, sir. That is the Pacific Northwest problem. That has started a submission to the Federal Power Commission. In other words, the Federal Power Commission has the say-so over all inter-State pipe lines in the United States. You cannot build a pipe line in the United States unless the Federal Power Commission certifies it.

Q Then are we to have these figures made available to us?

A I will be glad to send them up to you when I get back to Texas.

Q There is not a copy of them here?

A No.

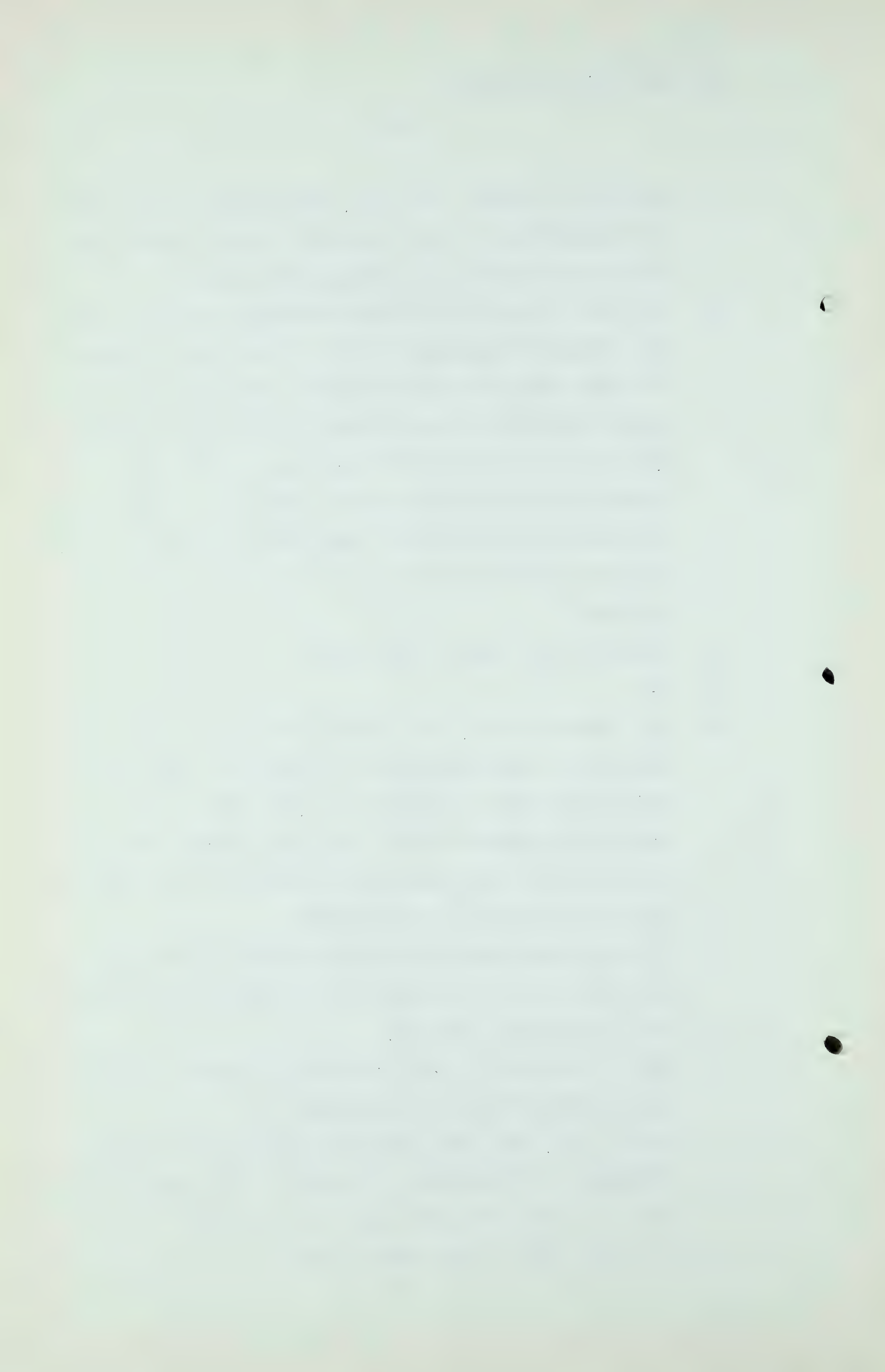
Q As I understand it, the project which you have in mind calls for a starting point of 100 million cubic feet a day and you hope to extend it to 225 million with a view to the Eastern market, and then I think you want to make some of that gas also available to the American transmission lines, is that right?

A If Alberta has such a tremendous surplus of gas that they want to find a market for, we intend to make that market available for them.

Q Have you thought of going into other Canadian Provinces such as Saskatchewan and Manitoba?

A We have not, but I will say this, that if the Alberta Government is interested in a market to pipe gas over there, we would be glad to get it.

Q You would like to take that on too?



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A I don't mind at all. That is our business.

Q It is not being considered at the moment?

A Well, we just thought about it.

Q Now I just want to get this. It is a very elementary point but I would like to clear it up in my own mind. Your scheme to take some Alberta gas for the Eastern Canadian market. First of all, it would be to take it from Texas, and then there would be, as it were, a saw-off with Alberta gas which was going to the Pacific Northwest and the United States?

A We would make a reciprocal exchange of gas, using Texas gas in the Canadian markets and Canadian gas in American markets.

Q Have you ever contemplated Alberta gas flowing right down that line as far back as Eastern Canada?

A Flown all the way back?

Q Yes?

A Well I would say that might happen. Again all I can use is a crystal ball, maybe 40 years from now if your reserves develop, we might get to such a state that we might want to bring all our gas from Alberta. It is possible. It is very simple to do, but I do not think it is probable, but it can be done.

Q It is quite feasible?

A Yes.

Q Mr. Fish, in your application to the Federal Power Commission is the dotted portion of the line on the map included in the application?



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A No, sir, it is not. That would have to be handled by an amended application.

Q You would have to go back to the Federal Power Commission with respect to that project?

A Yes.

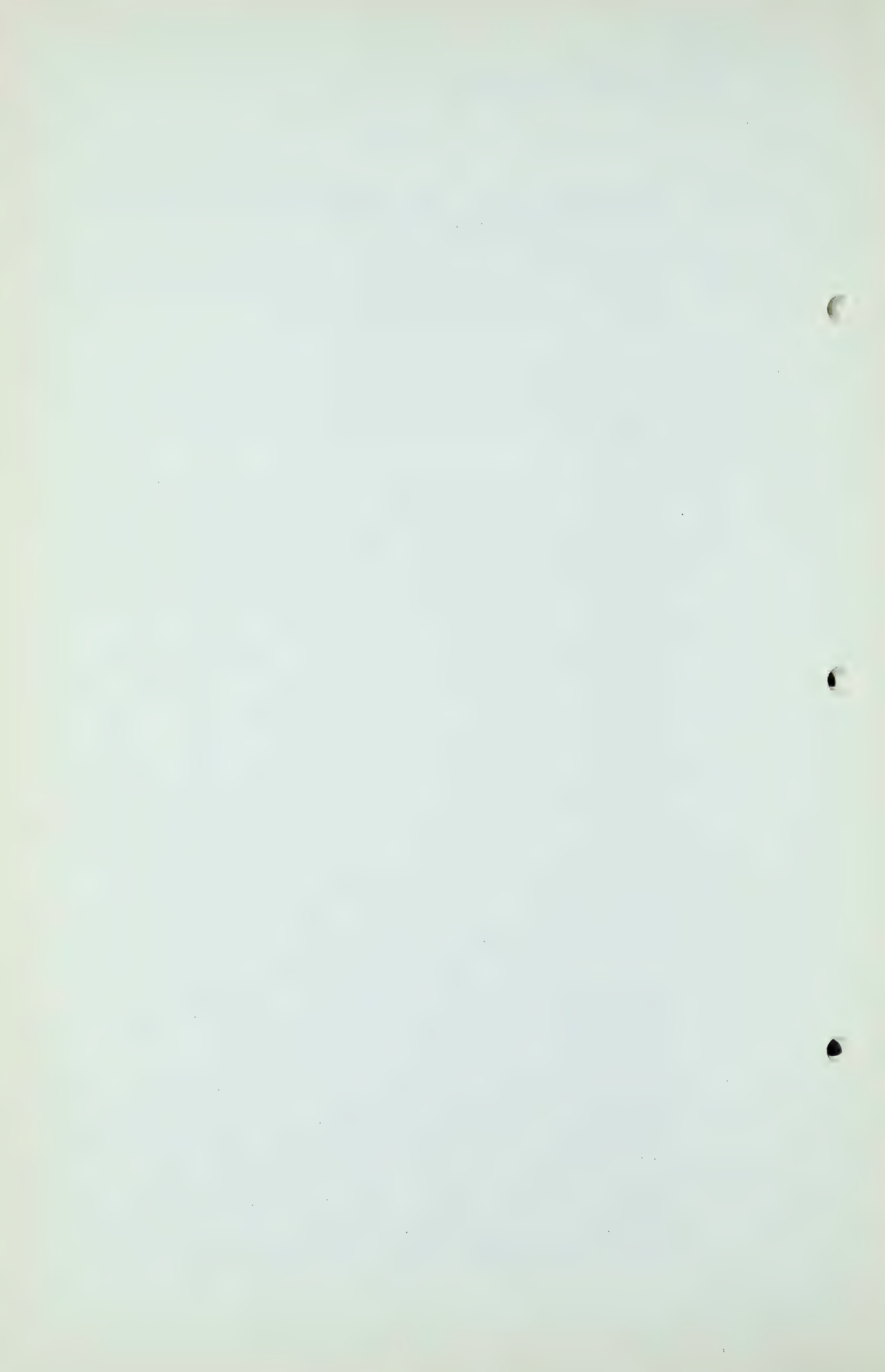
Q And that would be a project so far as the Federal Power Commission is concerned of piping Texas gas to Canada?

A No, sir.

Q You do not think they would regard it in that sense?

A No. We have divided this project into Plan 1 and Plan 2. Plan 1 first of all will be the line shown on the map, which goes from Texas into Alberta, and Plan 2 would be if, as and when additional gas was developed and made available by the Alberta Government, we would like the Board to consider it, that if we, as we hope to, get a permit to export the gas that we will start off with 100 million cubic feet and then as soon as additional reserves are developed, that then we will reach after that additional gas to transport the other way, into Eastern Canada. And therefore we could support, before the Federal Power Commission and before the Governmental Board of the Dominion Government - I believe that is the Board of Transportation - that is substantially what we are doing, is transporting Canadian gas to Canadian markets. Actually, we would be putting it all in one big jug and prorating it out.

Q But actually you would be putting Texas gas there. Actually it would be Texas gas that you would be transporting into Canada and you would have to get the



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consent of the Federal Power Commission?

A You have to have their consent, not in the sense that we would have to have their consent to use the Texas gas but it would be a simple procedure.

Q And don't you have to have a Presidential permit to export gas from the United States?

A It is possible.

Q And would you contemplate serving any points in the United States along the way in that 1000 miles?

A In that particular line we have not contemplated it. We considered making it a clean-cut deal that we should deliver it direct. Of course there again you cannot tell what the future might hold out. Our plans might change down the road, but that is the sort of over-all plan and it is based upon the terrible difficulty that two of our pipe line systems, namely the Panhandle Eastern and the Tennessee Gas Transmission have had, endeavouring to serve some gas to that Eastern Canadian market. It is my recollection that the Federal Power Commission at one time did give Panhandle Eastern the right to go ahead and serve - let me see if I remember the name of that company down near Windsor.

Q The Union Gas?

A The Union Gas Company. The Federal Power Commission said this. They said only after you have completely served the United States market. Now they are building a trunk line and they are still trying to put gas over into Canada. They still have the right to put it, under the Federal Power Commission ruling, but there



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are 21 interventions that are against it where they say, "Don't give it to those Canadians, by golly, we will buy it." They are having a terrible time doing it. We thought that we would make it a clean-cut deal, not one where anyone could come in and say to Pacific Northwest, "you cannot do this" or "you cannot do that".

Q My friend Mr. Smith put in a report, a utility report of the Federal Power Commission where the market had been more or less dedicated. It was supposed to be tied. Do you agree with that?

A Who is Mr. Smith?

Q Your counsel.

A You mean as far as the Federal Power Commission?

Q Yes?

A The Federal Power Commission, once it gives you an area to serve, you have an exclusive franchise.

Q And there might be some difficulty?

A No, I take it is all in the open, all clear. An open season in other words.

Q Have you had discussions with Canadian distributing companies with regard to distribution in Eastern Canada?

A Yes, I took my plane and went over there not over two or three weeks ago. We were there and saw Mr. Tucker of Consumers Gas, Toronto. We discussed the matter with the head of the Montreal firm, and the Union and all of them. We covered the whole waterfront.

Q You cleaned that up two or three weeks ago?

A They want gas. They want gas and they are quite aggressive people there.

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Q Did you make any firm contract?

A Never even offered them any. We said whenever we had the gas available we would be up. They said "Bring it all up here."

MR. C. E. SMITH: Not by plane.

Q MR. MARTLAND: Am I correct in understanding probably your statement yesterday that your American Company plans to take gas to the Pacific Northwest whether they get Alberta gas or not?

A Yes, sir, but I want to say that I want to temper that this way. I do not mean that to be a vicious statement or a sledgehammer statement. That is our intention at the present time, to go ahead, subject to getting the Commission's approval of it. We will say that. However, in the best interests of both Canada and the United States we also want to buy Canadian gas in here. Maybe I am selfish in that way, but I would like to do it. I would like to help out this Province and open up a market to them that if they once lose is going to hurt the economy of the Province.

Q Texas gas is going to be taken to the Pacific Northwest whether Canadian gas goes there or not?

A That is correct.

Q So any suggestion that Alberta should export gas to the Pacific Northwest on the grounds of national defence just does not hold water, Mr. Fish, does it?

A I would say that the Province of Alberta could contribute to the matter of national defence, not only for the United States but also for Canada, if it could

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make sufficient gas available for Eastern Canada, the Province of Alberta will be contributing in a major way to the defence of Canada and the United States.

Q But gas is going out to the Pacific Northwest from Texas whether Alberta contributes any gas or not?

A That is right.

Q Thank you.

CROSS-EXAMINATION BY MR. FENERTY:

Q Might I ask just one more question, and this is just a matter of information?

A Yes, sir.

Q I have been wondering, I do not know whether you know about it, or I do not know whether anybody knows about it because this situation, I suppose, has never arisen. If Alberta gas is going to be exported and assuming there is a limited supply to carry to the market of British Columbia - -

A Yes, sir.

Q Will the Federal Power Commission insist, itself, at all on any firm commitment?

A I do not know.

Q MR. C. E. SMITH: I have a few questions and I will try not to cover anything that has been covered before. First I say that you realize that I am on nobody's side. I hope you do in any event.

A You are neutral?

Q I am doing my best. Regarding first of all this Exhibit 2. That is this large map?

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A Yes, sir.

Q I had a look at it yesterday and it is apparently prepared by the Federal Power Commission or some other department?

A Yes. A Federal Power Commission map.

Q I take it that everything except the blue ink lines and so forth on the map is prepared by them, including the legend?

A I think we put these Texas link lines on. We are building that now on a certificate granted by the Federal Power Commission.

Q I just want to know what you put on here?

A We put on these two lines, plus the heavy blue line.

Q That includes the heavy blue line?

A Yes, the new one.

Q Otherwise it is a map prepared by the Federal Power Commission?

A Yes, it is an official map prepared by the Federal Power Commission.

Q I just want to know what you put on there.

A These, and then we put on this heavy blue line.

Q Now what is the color?

A This one looks to me like green, unless I am color blind, and this is brown.

Q Now, by the way, maybe your counsel can answer this but do you intend to submit to this Board a copy of the application to the Federal Power Commission?

A I will be very glad to file one.

MR. S. B. SMITH: It was filed some time ago

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with your Board.

MR. C. E. SMITH: I do not suppose you would
mind having it filed as an exhibit?

MR. S. B. SMITH: No. It was filed by Mr. Herring
some weeks ago.

MR. C. E. SMITH: Could it not be filed as an
exhibit, so that any of these other gentlemen who may
want to could see it?

MR. S. B. SMITH: I think our position, with
respect, sir, is, we have made the application available
to the Commission. We were content to do so and we did
and the Commission has it before it.

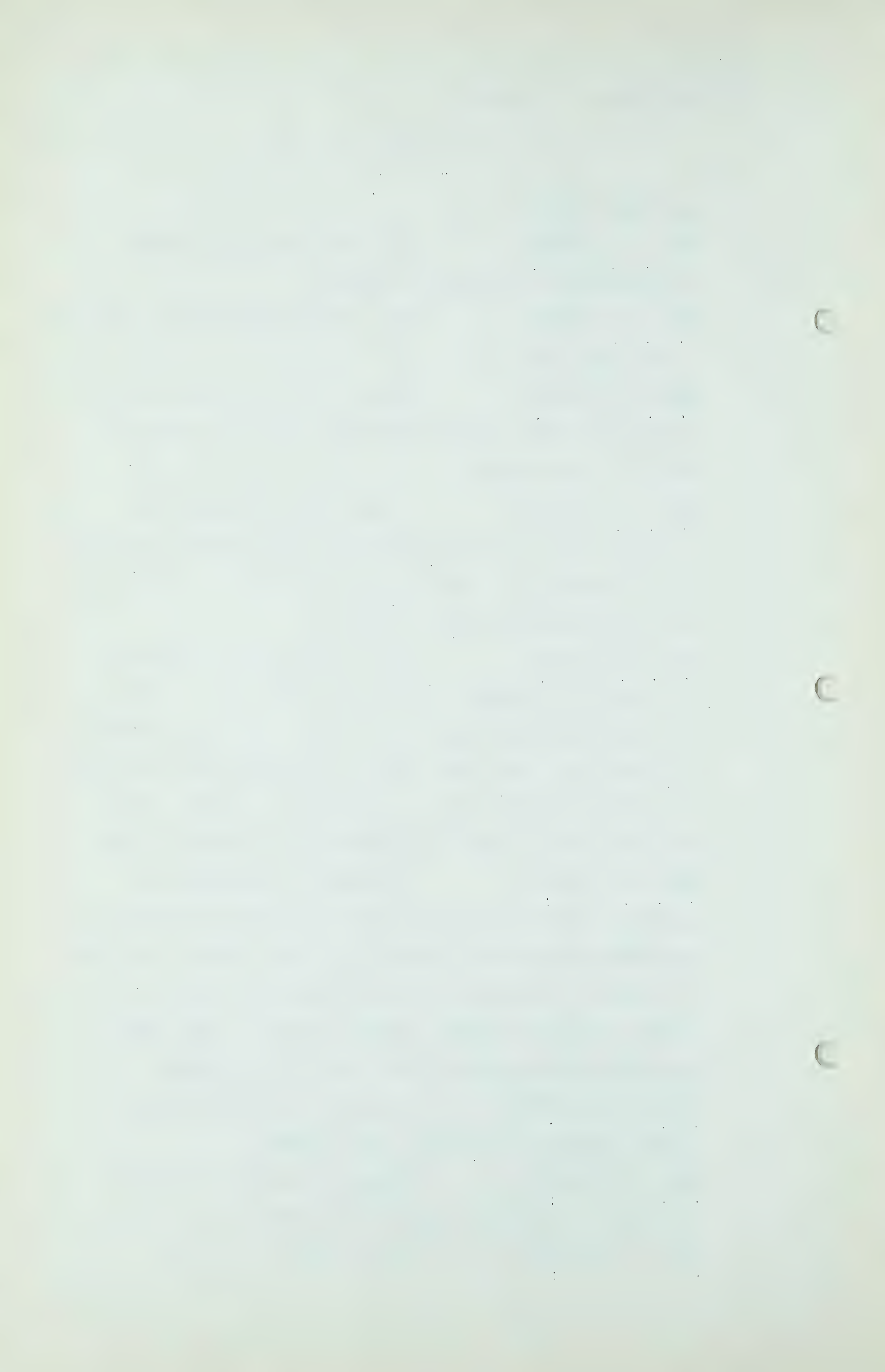
MR. C. E. SMITH: We have not had it tendered
in these proceedings and all I am getting at is this,
I do not want the Board to be in the position of having
somebody say, "Here, we will be slipping this to you but
do not let the rest of the gang see it." Maybe some-
body had better have the opportunity of looking at it.

MR. S. B. SMITH: I suppose if something is
given to the Conservation Board by us it is presumably
on public record and anybody can go and look at it. When
I asked to have access to any document that the
Board had received from another company, I was unhesi-
tatingly given permission to look at the document.

MR. C. E. SMITH: Are we not both on the same
side? Cannot we make it as an exhibit?

MR. S. B. SMITH: Perhaps you would not mind
if you allowed me to finish my statement.

MR. C. E. SMITH: I am sorry.



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MR. S. B. SMITH: This is not a hearing before the Federal Power Commission. We of course say that this hearing has nothing to do with the many subjects dealt with in the applications to the Federal Power Commission. We have been endeavouring, and will continue endeavouring, to be of all the assistance we can to this Commission upon the subjects which are within the jurisdiction of this Board. That is, matters in Canada.

(Go to page 143.)



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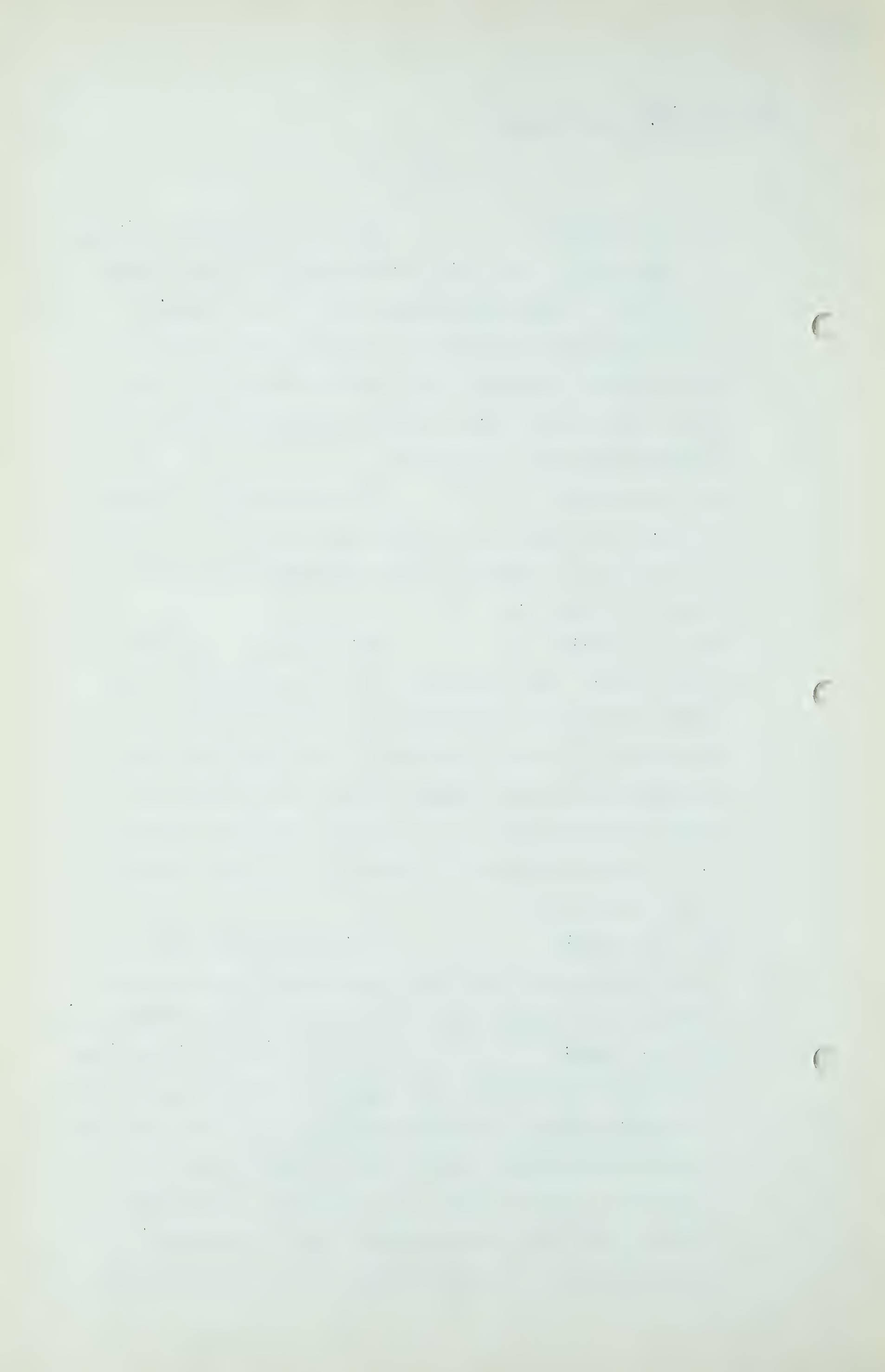
MR. S.B. SMITH: But we think there is a line of demarkation as to how far investigation should extend and I want to make myself quite clear in that regard. I have no objection whatsoever to anyone having access to this report. Presumably they have had access for some time. At the same time, I see no necessity to having the document marked as an exhibit.

MR. C.E. SMITH: I am not asking to compel anybody. However, I don't want the Board to be left in the position of having a public statement that is not before this Hearing.

MR. S.B. SMITH: Well, I hope I have made myself plain. The document is in the possession of the Board and I assume that everyone who is interested is entitled to look at a document of that sort that is in the possession of the Board. We have no objection to anyone looking at it. If the Board desires to refer to it, of course they are at liberty to. We have nothing to say about that.

MR. C.E. SMITH: I think you will agree if I ask whatever you file with the Board be tendered as an exhibit - - it seems to me we are getting into difficulties.

MR. S.B. SMITH: I do not think my friend and I are really far apart. You suggested a while ago that the document be marked for identification so you will know what we are talking about. Do you want it marked for identification? I do not think it is evidence. I know this Board is not bound by the ordinary rules of evidence. It is not relevant to the proceedings before this Board but



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here it is. If anyone wants to see it, why, look at it.

MR. C.E. SMITH: Of course, if this Board in their capacity under this Act wants to use it, shouldn't it be marked as an exhibit and not have a public statement made that it is in with the Board but that it is an exhibit, seeable by everybody concerned. Is there any objection?

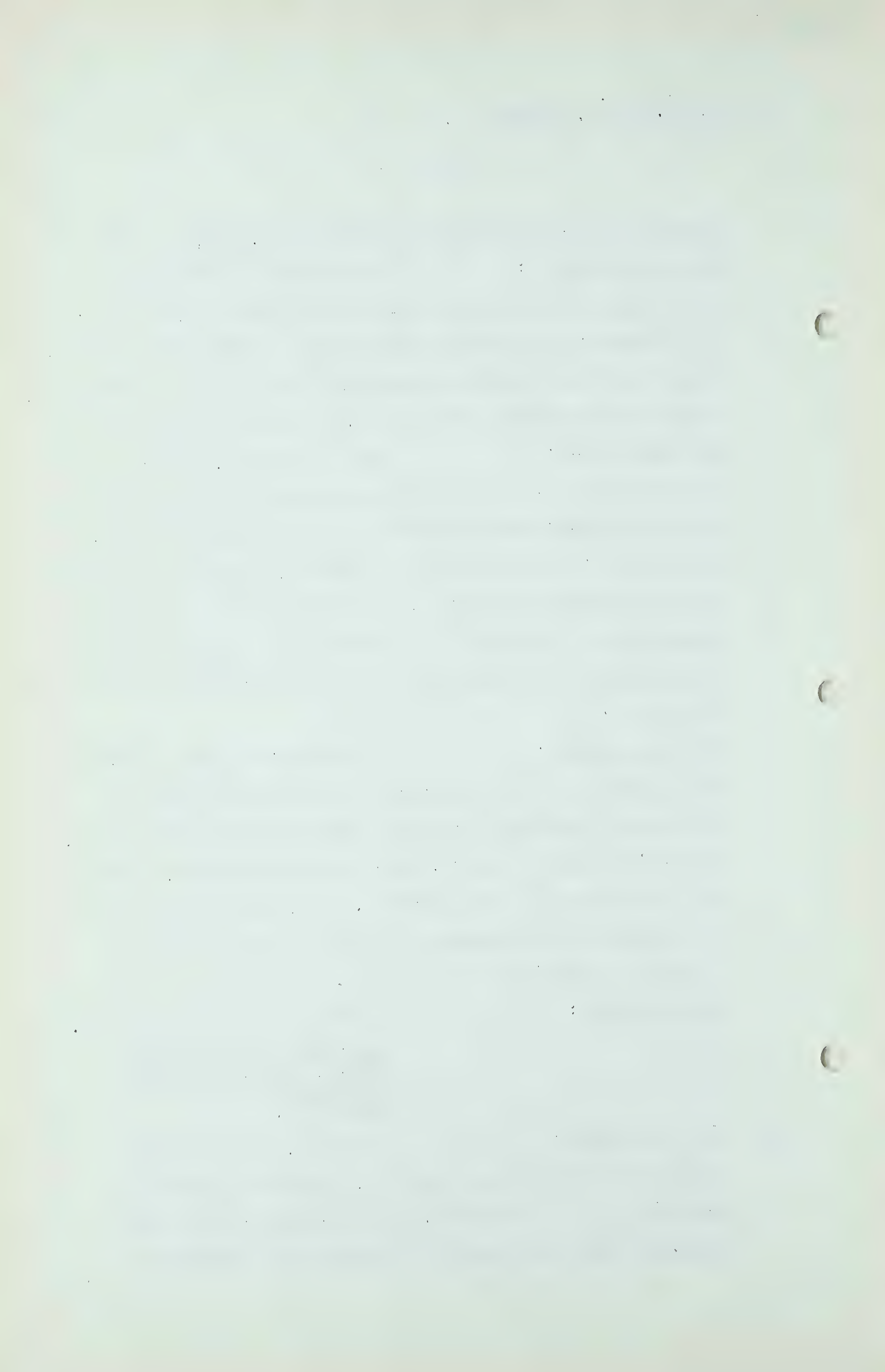
MR. McDONALD: Mr. Chairman, I think we have got at least four or five documents filed that refer to this Federal Power Commission. I think under the rules of evidence it must be filed. I am not probably interested, I have photostatic copies. I do not think there is any reason why it should not be referred to as an exhibit and this gentleman be cross-examined on it if anybody desires to do so.

MR. S.B. SMITH: If my friends want it marked as an exhibit, we are agreeable on the understanding we are trying a question before the Federal Power Commission. Subject to that position, which we will maintain, we have no objection to it being marked. Now, if anyone wants me to enlarge on that statement I will be glad to do so but I hope the meaning of it is clear.

THE CHAIRMAN: It will be exhibit number 8.

APPLICATION BEFORE THE
FEDERAL POWER COMMISSION
PUT IN AND MARKED
EXHIBIT 8.

Q MR. C.E. SMITH: Mr. Fish, I am going to carry on at the bottom of page 1, if you will look at Exhibit 1, your submission. I understand from the other questions that were asked the survey there referred to is



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a survey not before the Board nor entitled to be put before the Board as far as you know?

A A survey made by Prairie?

Q Let us read it:

"Prairie made such a survey and upon receiving the geological report on the natural gas reserves....."

A That is the one that is going to be made in an exhibit later by Mr. Galloway, I believe. Oh yes, I guess it has already been filed.

Q I do not think it has.

MR. S.B. SMITH: Yes, it has been filed with the Board but not marked yet because the witness has not been on the stand.

Q MR. C.E. Smith: It is not an exhibit but that is the survey you refer to?

A Yes, that Prairie made.

Q Well, Mr. Galloway's report which I anticipate will be filed shortly?

A Yes.

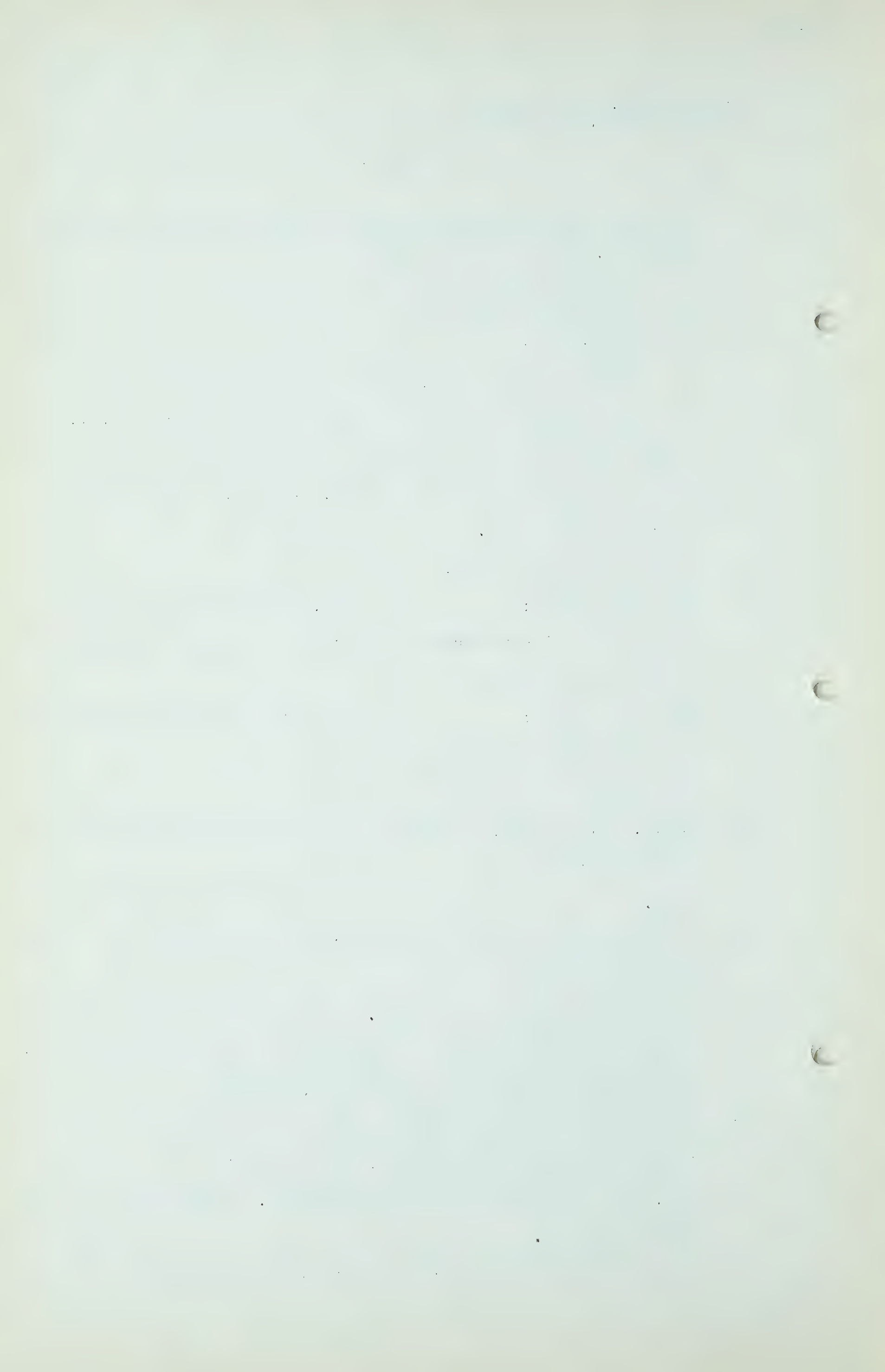
Q I want to be sure about that because a moment ago you referred to two?

A I have been looking for that. I know one of these gentlemen brought it out and there is another one where Pacific Northwest made a survey but it was just, you know - -

Q That is what I want to know. Have you got another one that would assist this Board, that is all?

A No. No, but there are two referred to. I just can not find the other one.

Q Maybe from memory you can tell me what the other one is?



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A I did a little while ago state that the survey we made was a preliminary survey having come up here and talked to a number of geologists, and in turn reading the excerpts from those geologists and other geologists and we determined to go ahead with the project.

Q I mean, there was no written brief for submission?

A Oh, no.

Q It was your own conversation?

A Conversation and reading of reports.

Q With Mr. Slipper, Mr. Galloway and various people like that?

A That is right.

Q So there is nothing more you can furnish the Board with?

A Oh, no, the only one is Mr. Galloway.

Q Now, referring to page 2, I think it was mentioned to you by Mr. Fenerty, but referring to what he drew your attention to with regard to the Federal Power Commission,

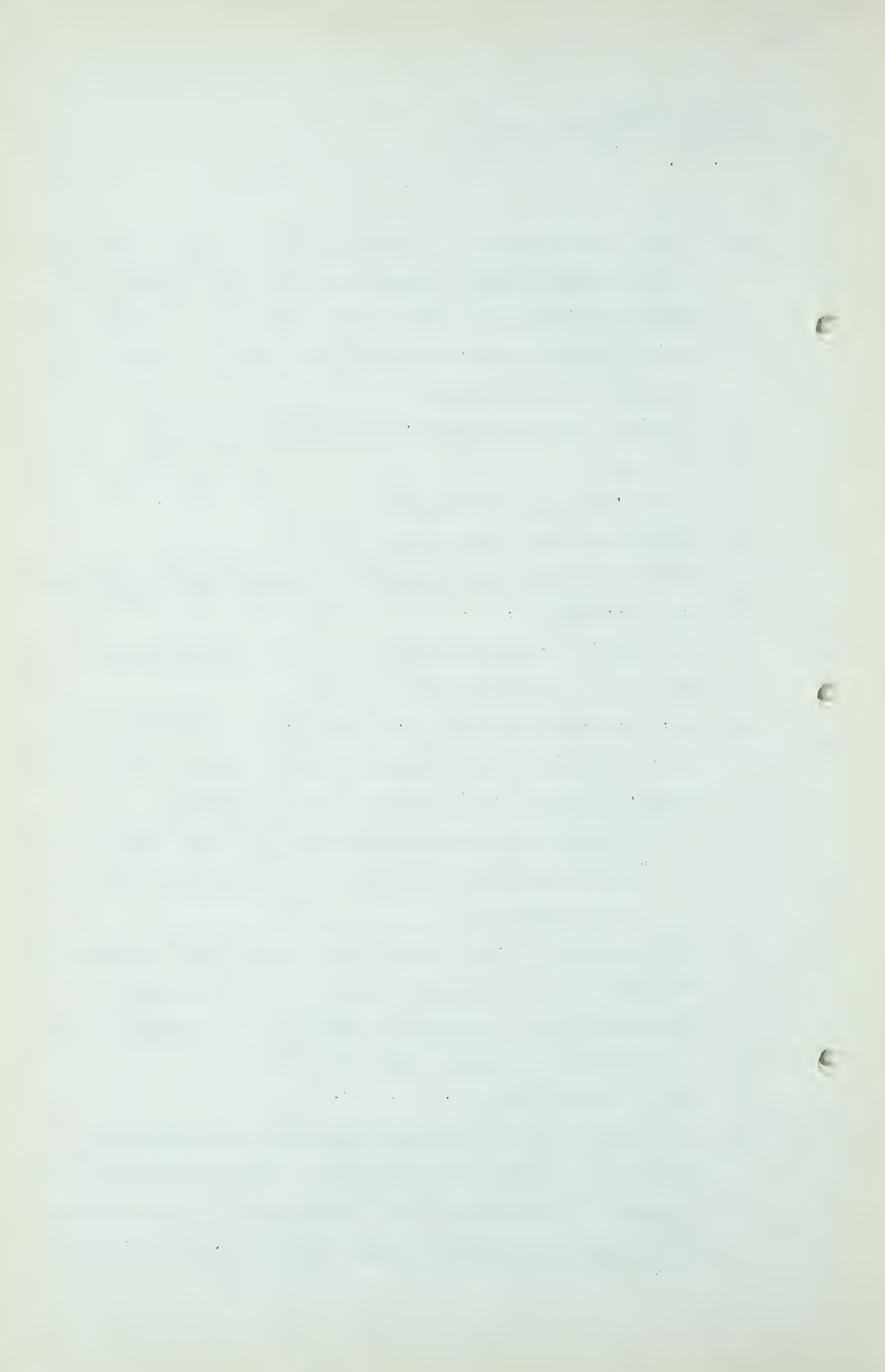
"Requires the complete dedication of proven deliverable natural gas reserves to meet the full market requirements."

Having regard to what you say the Federal Power Commission requires, can you help the Board by giving them your opinion of what they should require in this situation?

A I will give my opinion, yes, sir.

Q That is what I want.

A All right. The Federal Power Commission on inter-State pipelines - - now, inter-State only, I want to make that a point - - inter-State, as I understand it, means crossing State lines and wherever you go from one State to another



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and serve a market, they require that the reserves must be proven and deliverable. The local States or the local gas producing States such as Texas, Kansas, California, the inter-State pipeline does not come under the Federal Power Commission's jurisdiction, therefore the Public Service Commission of the States takes jurisdiction.

Q I am afraid I did not put my question so you understood it. Let me put it this way. Do you agree that this Board here should at least require what you say the Federal Power Commission requires with regard to the protection of the people of Alberta?

A No, sir, I do not agree that they should, and I can tell you why.

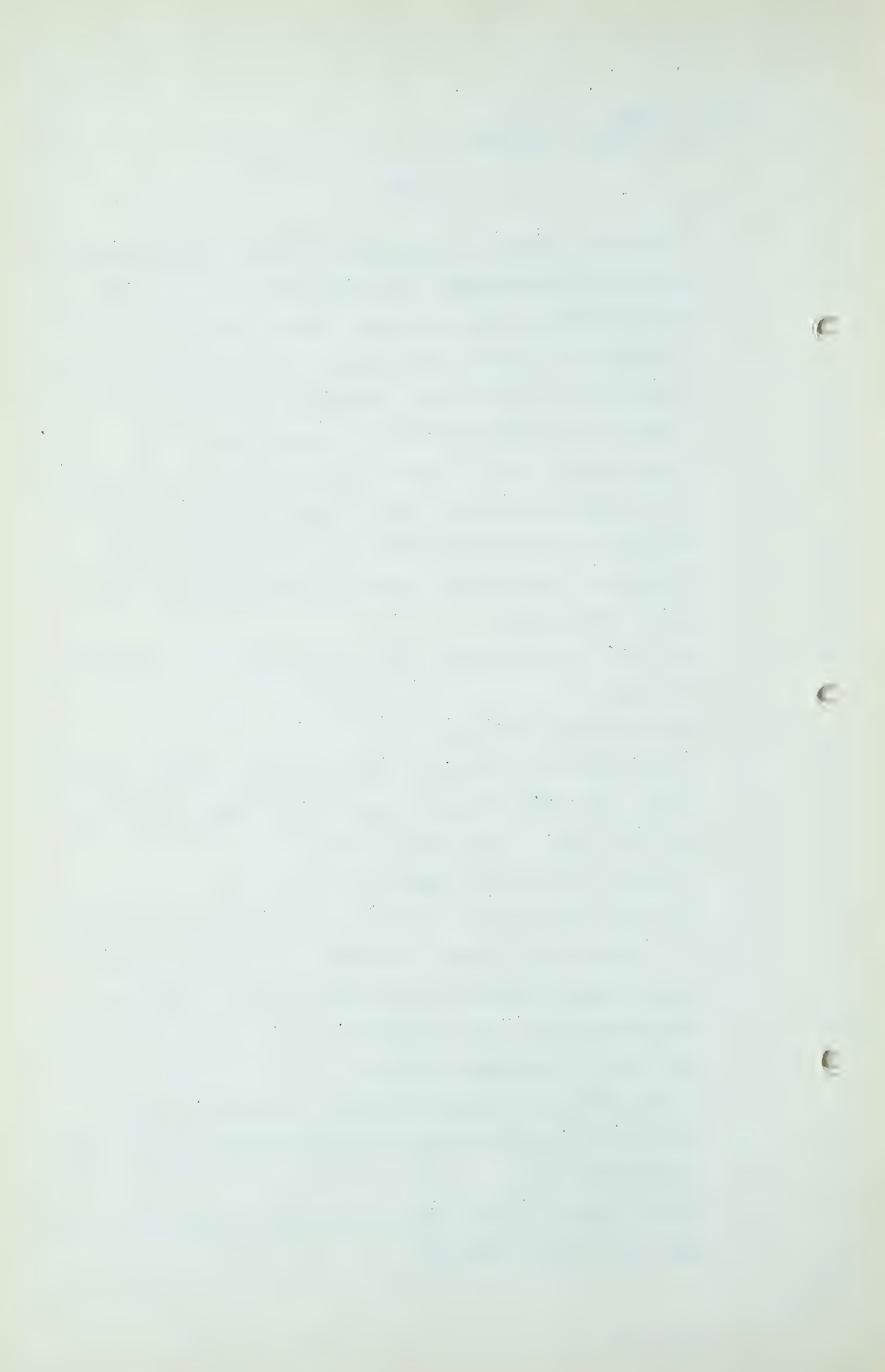
Q But you have read our Act?

A I have read your Act and I think section 9 reserves the right. In other words, if there is an emergency they cut off the supply. That protects them.

Q I mean 3 to 7, if you remember?

A It is my opinion that the Board of Transport is a Dominion - - I guess that is what you call it - - is a Dominion agency that is created by the Dominion Government which has jurisdiction over inter-State pipelines such as Prairie would be an inter-State pipeline. Now, I do not see how a Provincial government could have jurisdiction over it and the Board of Transport, a Dominion agency, could have jurisdiction.

Q What I suggest is this, the Federal Power Commission requires what you state on page 2?



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A Yes, they do.

Q The last paragraph. Could you assist this Board by giving your opinion as to what they should require for the protection of the people of Alberta? At least, the same, wouldn't they?

A No. That in no way applies to the Province of Alberta. The Federal Power Commission, as I previously stated, sir, if you are familiar with the Act and with this writing here, I think it distinctly says inter-State pipelines, from one State to another.

Q I am not talking about that. It requires the complete dedication of proven deliverable natural gas reserves to meet the full market requirements. The market requirements of the Province of Alberta should at least, by this Board, have the same requirements supplied to them?

A That is your opinion, sir, not mine.

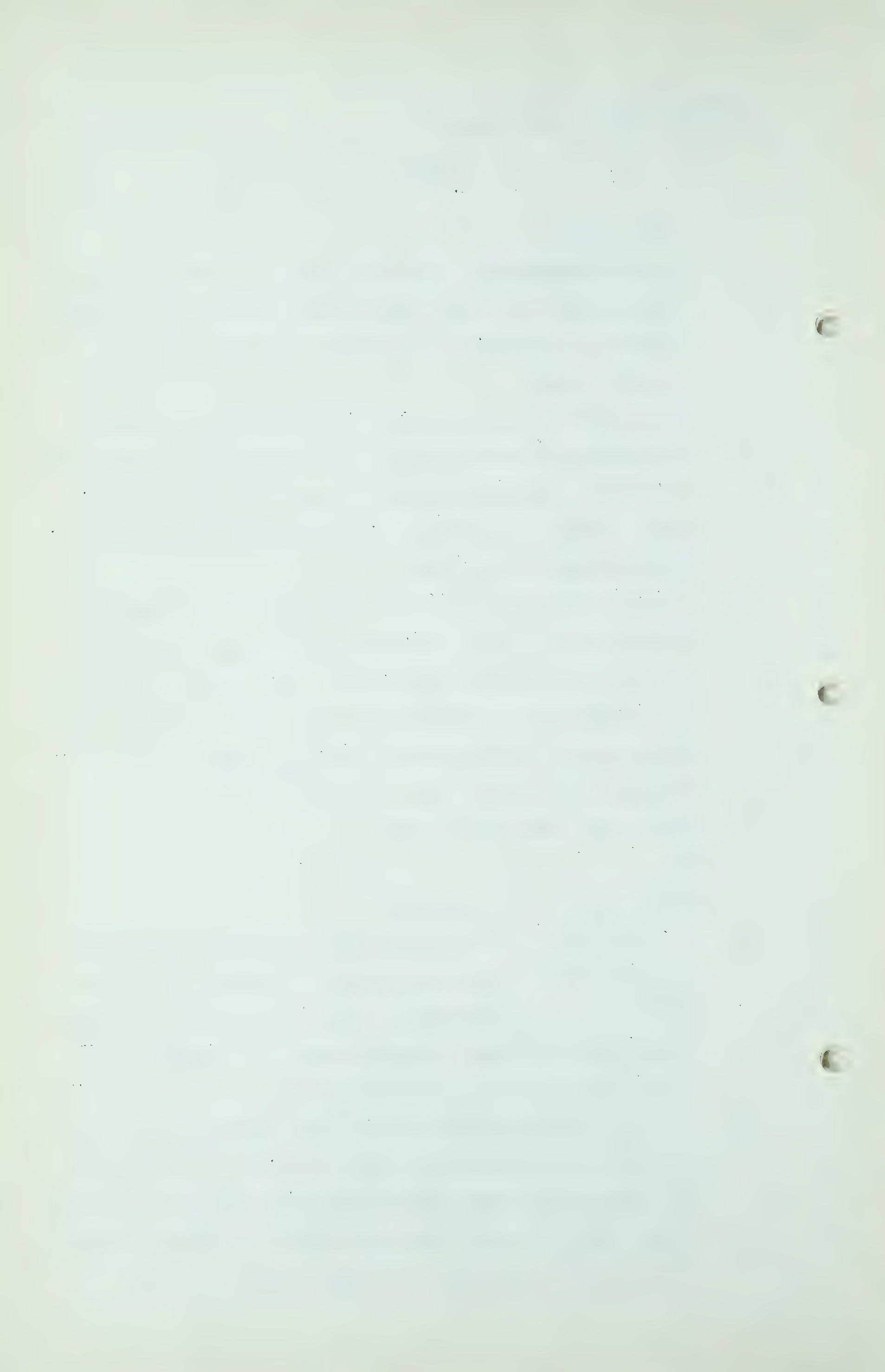
Q You do not think that is so?

A No.

Q Having read our Act as well?

A I think that it is up to the local Provincial Government to safeguard the local markets and I am heartily in favour of that but I do not think we should take part of the Act of the Federal Power Commission and say it should be applied to any local Provincial market.

Q I am not suggesting the Federal Power Commission has anything to do with it. All I want to know is if you think the requirements that the Federal Power Commission requires should apply to this Board with respect to their protection of the people of Alberta. Is that clear?



A That is clear. No, I do not think so.

Q Referring to page 3, Mr. Fish?

A Yes, sir.

Q The last paragraph on page 3:

"Prairie amended its application before the Board of Conservation in September 1950 and now requests the right to export a minimum of 100,000 MCF. per day of natural gas from Alberta Province."

Having regard to that statement, I know there is further in the paragraph, but insofar as the people are concerned, would you be content with a present permit limiting you to that amount?

A To 100 million?

Q Yes?

A Oh, yes.

Q By the way, while I think of it, is there any difference between the Canadian ideas of billions and trillions with regard to the number of zeros, or can you tell me?

A Oh, I think we are all in complete accord, Americans and Canadians.

Q There is no difference in the number of zeros behind the one?

A No.

Q Tell me how many zeros there are behind one billion?

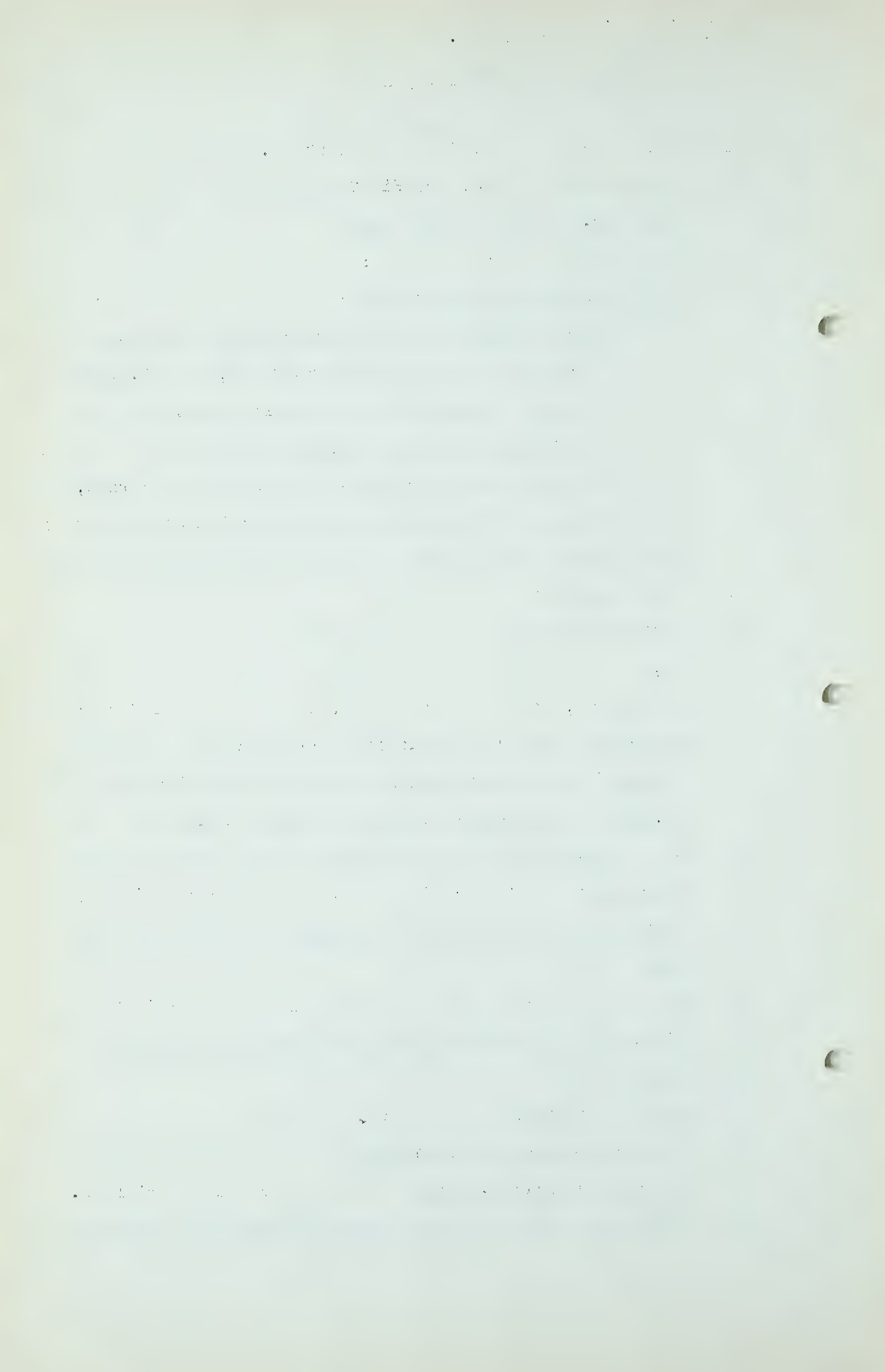
A Nine.

Q And a trillion?

A It could be twelve, I believe.

Q Is it a thousand billion?

A A thousand billion. One thousand billion is a trillion.



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Q And that gives you how many zeros?

A Twelve.

Q Twelve, okay.

A I do the same thing all the time, I have to watch my decimals.

Q I was not being smart, Mr. Fish.

A I know, I fully appreciate it.

Q I think you said you would be content personally with a permit not to exceed 100 million?

A Yes, sir.

Q And while I am at that, with respect to what Mr. Martland asked you, I take it that although you will be content presently with 100 million you would build a pipeline which you would hope would eventually carry 100 plus 250, is it?

A Yes, that would be capable.

Q 250 in Eastern Canada?

A No, it would have a total capacity of around 300 million.

Q If you were going to Eastern Canada you would have to build another line?

A Yes, we might have to do some looping on it.

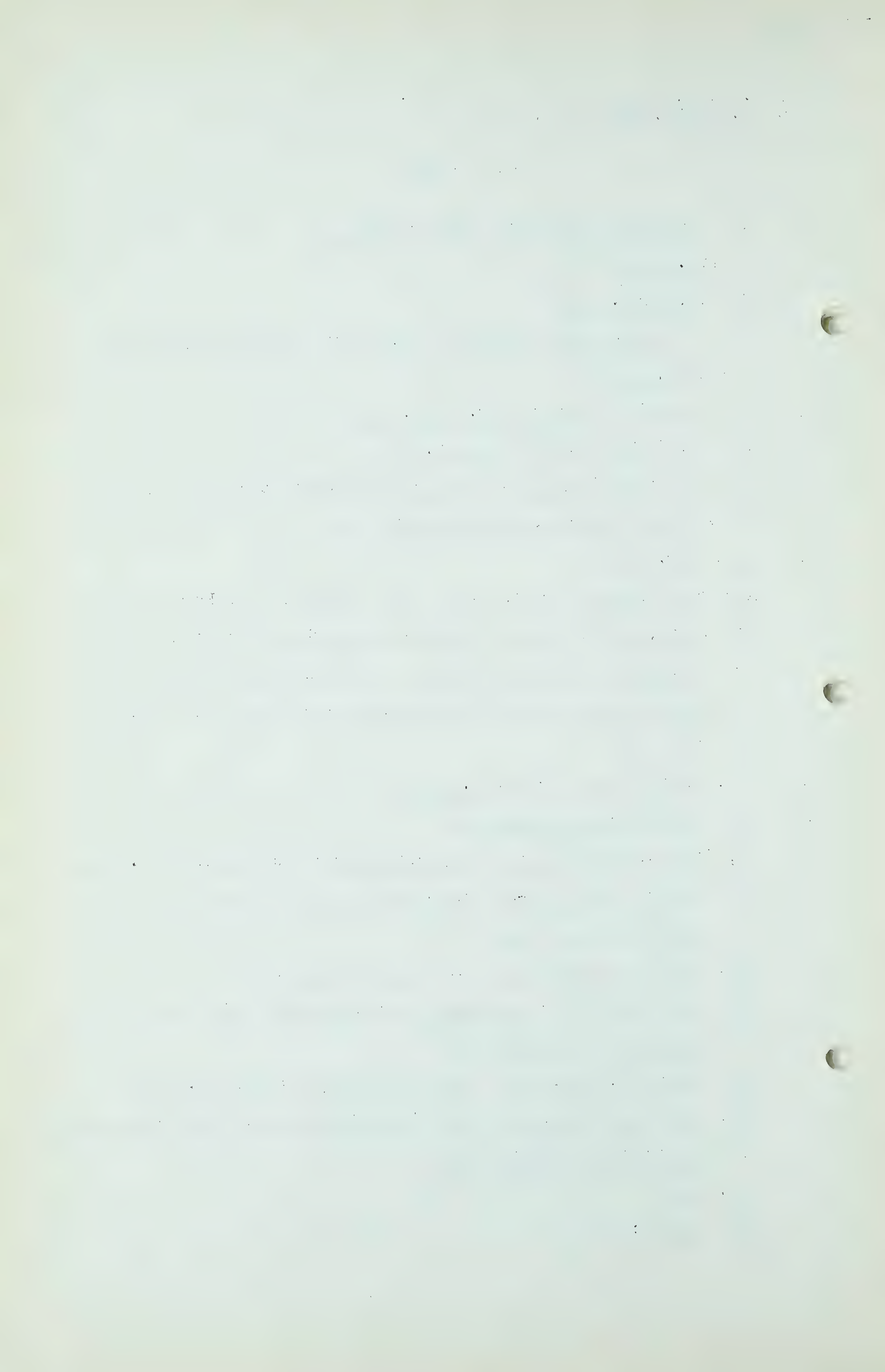
Q But you do not anticipate that with the size of the line presently anticipated?

A That is right, yes. We just plan on a 24-inch line.

Q Now, look at page 4, at the bottom of the page, this Exhibit 1, your own submission?

A Yes.

Q And you say:



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" To serve this proposed gas transmission system, Pacific Northwest proposes to transport the natural gas for Prairie for this gas transmission system by constructing a lateral line of approximately 1,000 miles in length from....."

Mr. Martland asked you about that and I take it when you call that a lateral you are extending language quite a lot, aren't you?

A Oh, no. We do it every day. That is just a thousand miles of 24, 26-inch pipeline.

Q I know, but that is a long way, isn't it?

A Oh, sure it is. It is substantially, of course, this matter of English and grammar, to me that would be a lateral line, to some other people it might be something else. I mean, it is a matter of description.

Q It struck me that that is a long line?

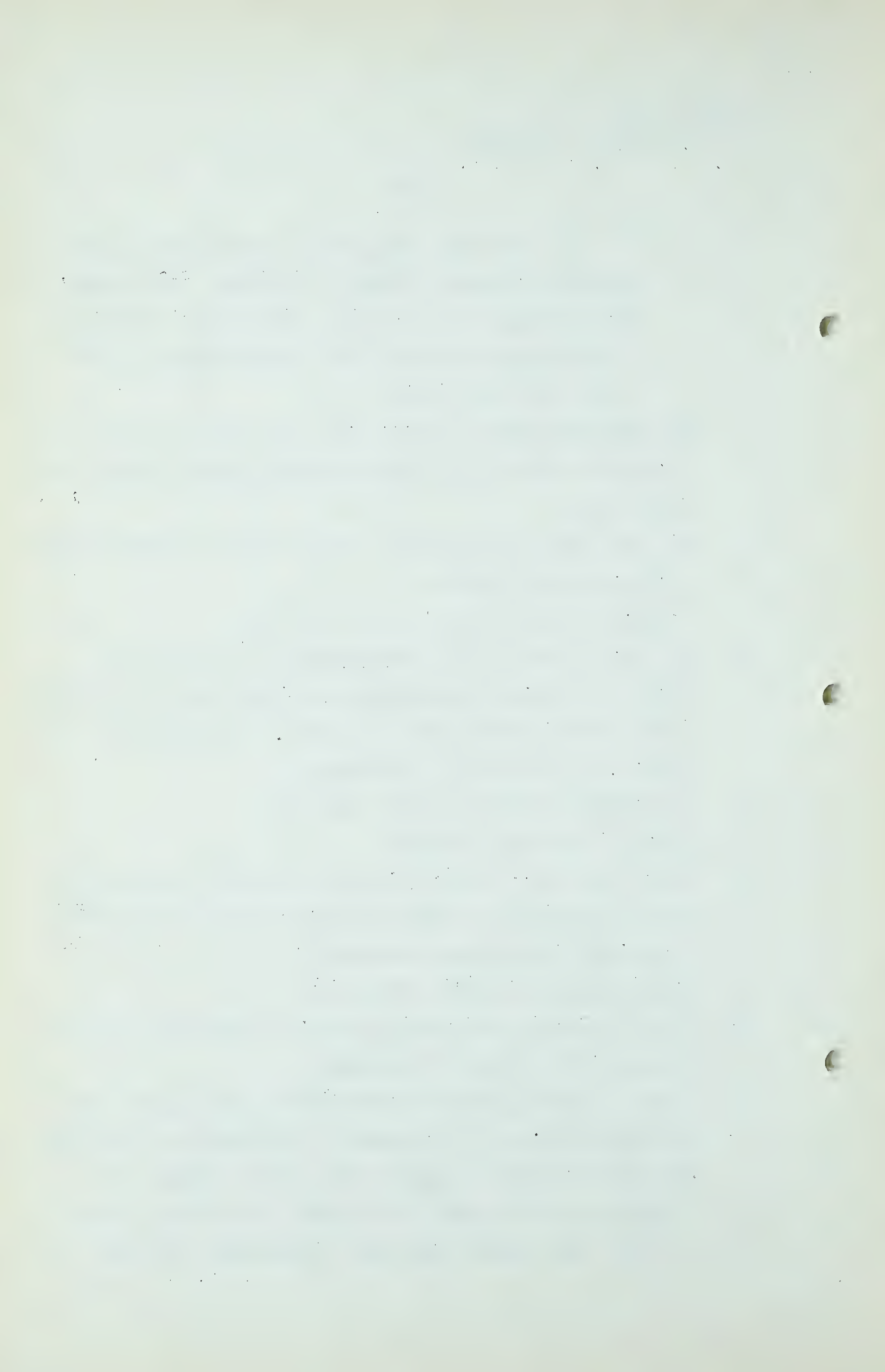
A Yes, it is a major project.

Q And I take it, or maybe you have not, have you considered the economics of building such a line without even having considered intermediary consumers?

A I made complete studies on it, sir.

Q And you are going to take gas that thousand miles without selling it to anybody in between?

A That is right, because you are building that system for the market. The initial market - - I believe we are going to submit figures - - and it will show my figures are slightly in error here. It is about 240 million a day. In turn, that market will have a load growth over the



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first five years up to probably 350 to 400 million a day, so that line will be constructed for the first five years at least.

Q Your object, having regard to economics, is to go to Montreal primarily?

A That is right.

Q Without considering anything else in between you feel you can do it?

A Oh, yes, I know we can. You see, part of my business for a number of years, I think it dates back seven or eight years, is to make economic studies on all pipe projects.

Q I have no doubt about that. Referring to page 5, if I understood your remark to Mr. Martland, 3.9 trillion cubic feet was 50 times 78?

A Yes, whatever it was, those figures are what the local people said that they needed.

Q And the 50 means 50 years times 78, is that correct?

A Yes.

Q And you have made no other study of that?

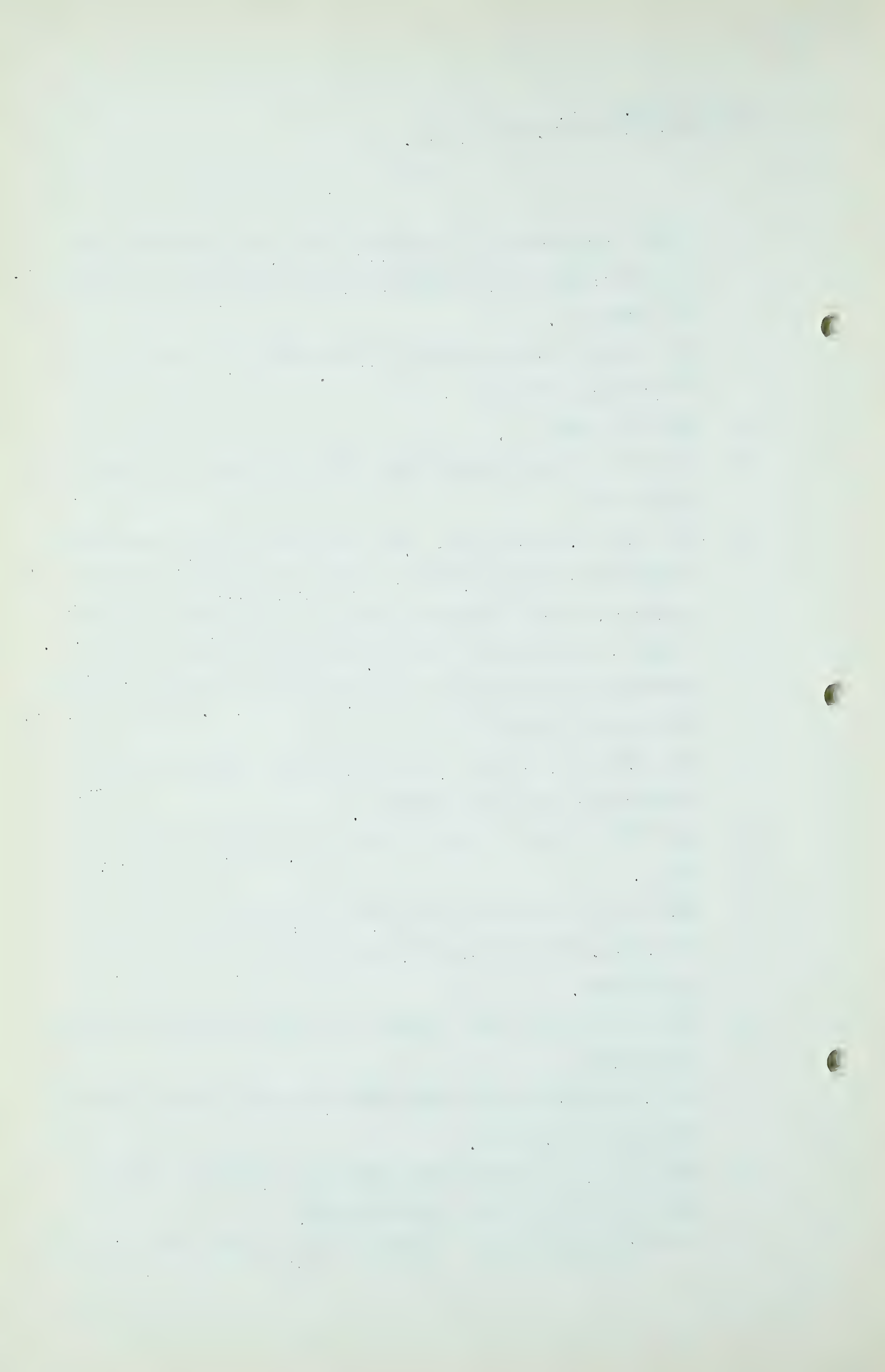
A No, sir. We took the facts as presented by the local utilities.

Q You say you took that because you thought they were vitally interested?

A Yes, we think they probably know more about their business than we could guess.

Q Did you by any chance study the City of Edmonton brief put in at one of the other Hearings?

A I don't think we did. I think we put in the briefs of the



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other utilities.

Q All I am suggesting, Mr. Fish, is this, that possibly, if you had read their brief, you might think that the gas companies or local companies were a little too low, particularly with regard - - but you have not seen them?

A No, I have not seen them.

Q Now, at the bottom of page 5, Mr. Fish, you say:

" It is recognized that the so-called proven reserves are not now completely deliverable....."

Can you expand that a bit and tell us what you refer to there?

A Yes. I do not know as I can say exactly how much of the proven reserves are deliverable but to make them deliverable all you have to do is drill more wells and hook them on, then it is deliverable.

Q That doesn't quite answer my question. Let us read it again:

" It is recognized that the so-called proven reserves are not now completely deliverable....."

"So-called proven reserves", to what are you referring there?

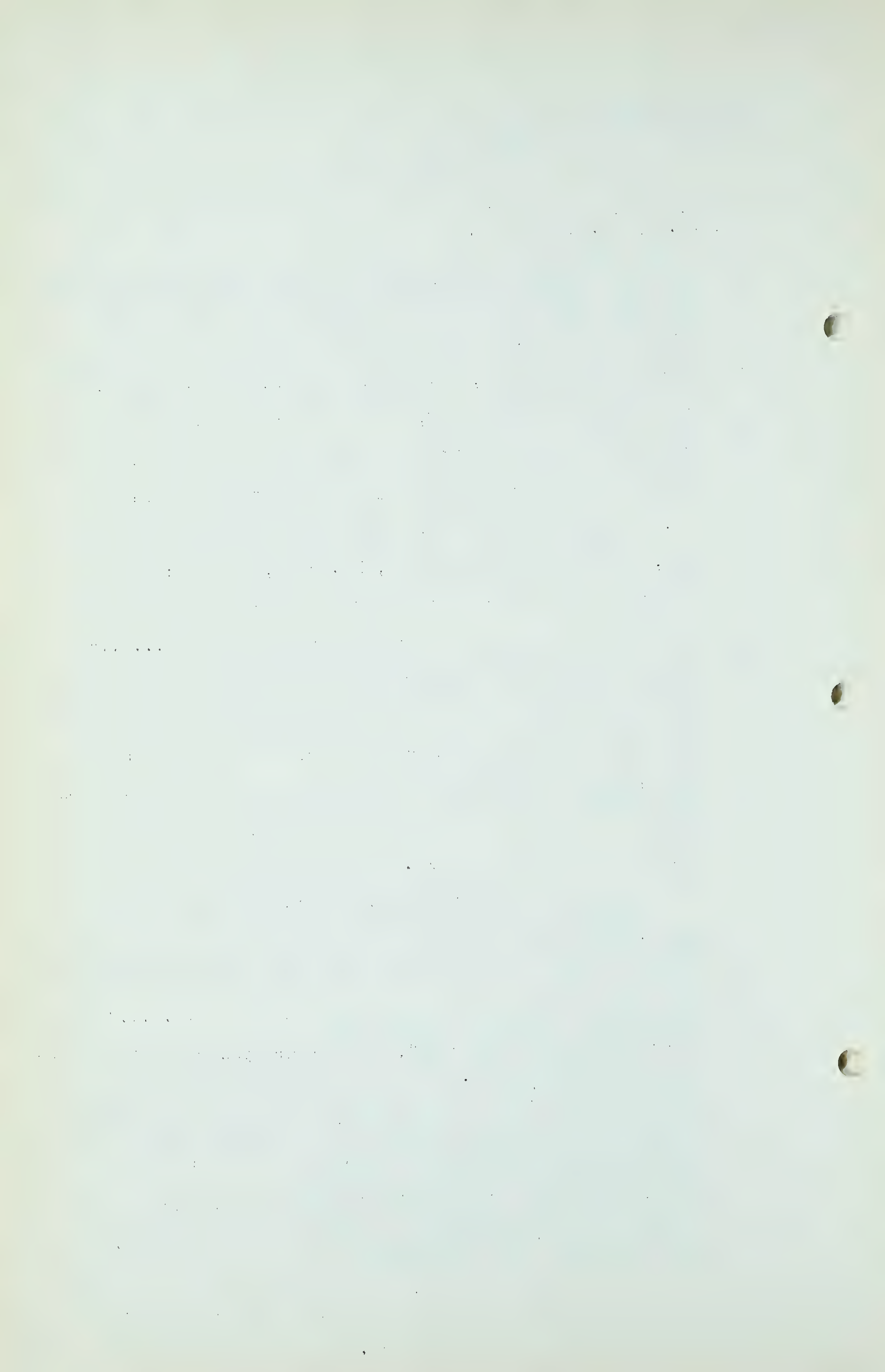
A Proven reserves.

Q Did you mean the word "so-called"?

A No. I should have had that "so-called" probably out of there, it should have been "proven reserves". That "so-called", I mean, I used probably too general language.

Q What you refer to is proven reserves?

A We consider there are about 5 trillion cubic feet of proven reserves in the Province.



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Q Can you designate them by fields or anything, or would you sooner leave that?

A Oh, I would rather leave that to the geologists.

Q And whatever he calls proven reserves, that is what you refer to?

A Yes.

Q You say:

"are not now completely deliverable."

Can you explain that?

A Yes, I can extend it by the next sentence. If you continue on, sir, maybe you will extend it yourself. Just continue reading, please.

Q Do not fight with me.

A No, I was just thinking that maybe you will get the answer there, that this can be accomplished immediately by the drilling of additional wells which will make the gas deliverable.

Q I have read that. What I want to find out from you, Mr. Fish, is what do you mean by "not now completely deliverable."

A Well, that there have not been enough wells drilled to produce that much gas.

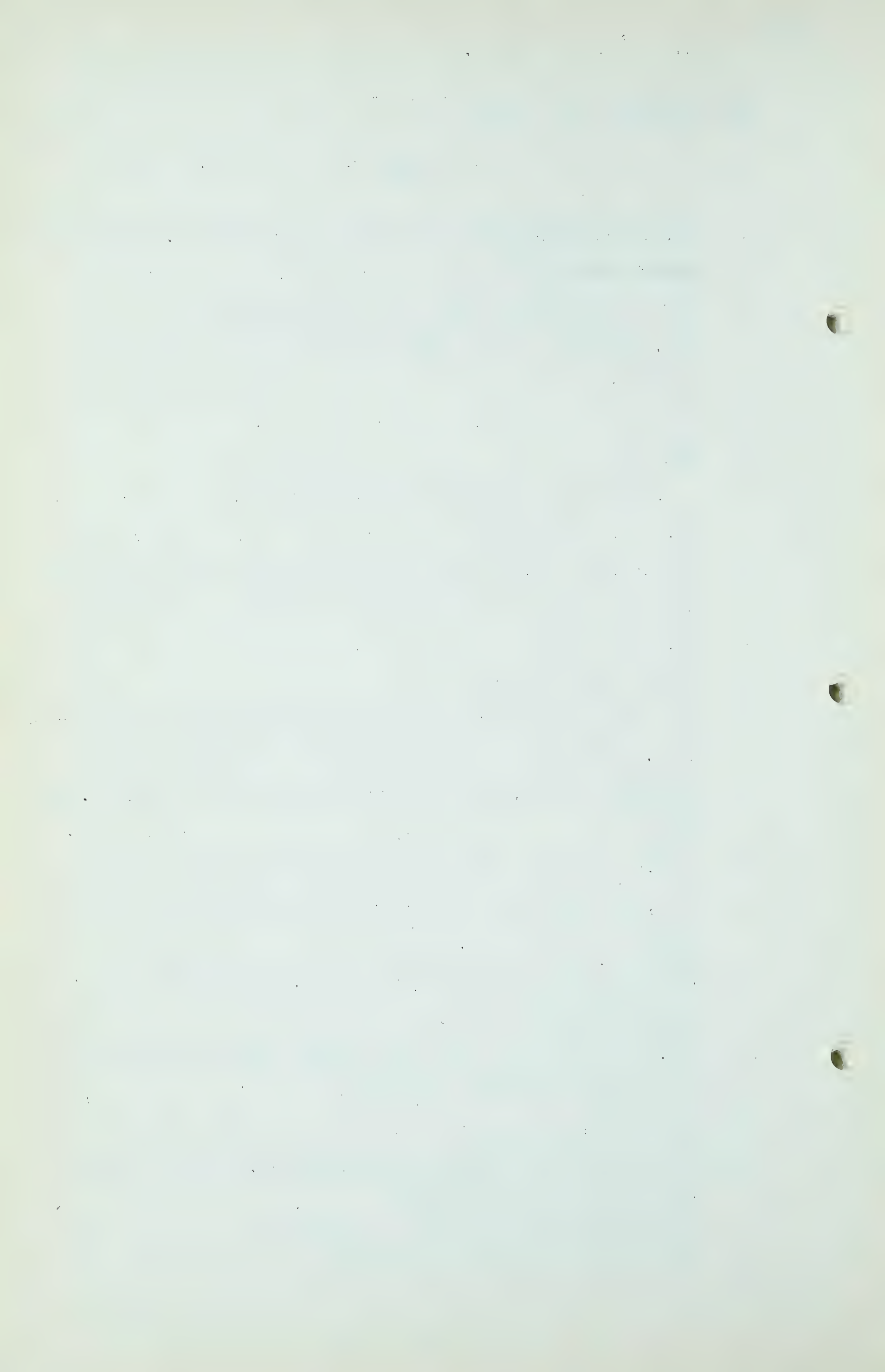
Q I know there is gas under the ground, some of it comes up and some goes into the pipeline?

A Yes.

Q But are you referring to any particular fields or areas, that is all I am getting at?

A Total proven reserves over your Province.

Q "Are not now completely deliverable"?



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A Partially deliverable, and they should be only partially deliverable until you get the market to justify the drilling of wells.

Q You even include Kinsella in that and Turner Valley?

A I am not probably familiar with it. I think probably Mr. Milner's company owns that.

Q Mr. who?

A Is that Canadian Utilities? Mr. Milner's company, or somebody's company.

Q Oh, Mr. Milner, I am sorry. I think we have all heard of him some place.

A I went to a cocktail party with him last night.

Q Now, referring to the bottom of page 6, Mr. Fish?

A Yes.

Q " Prairie initially proposes to construct its natural gas transmission system in Alberta Province to the gas producing fields in the Southwestern part of the Province."

Can you, or is there some other witness will tell us just what those fields are that you speak of there?

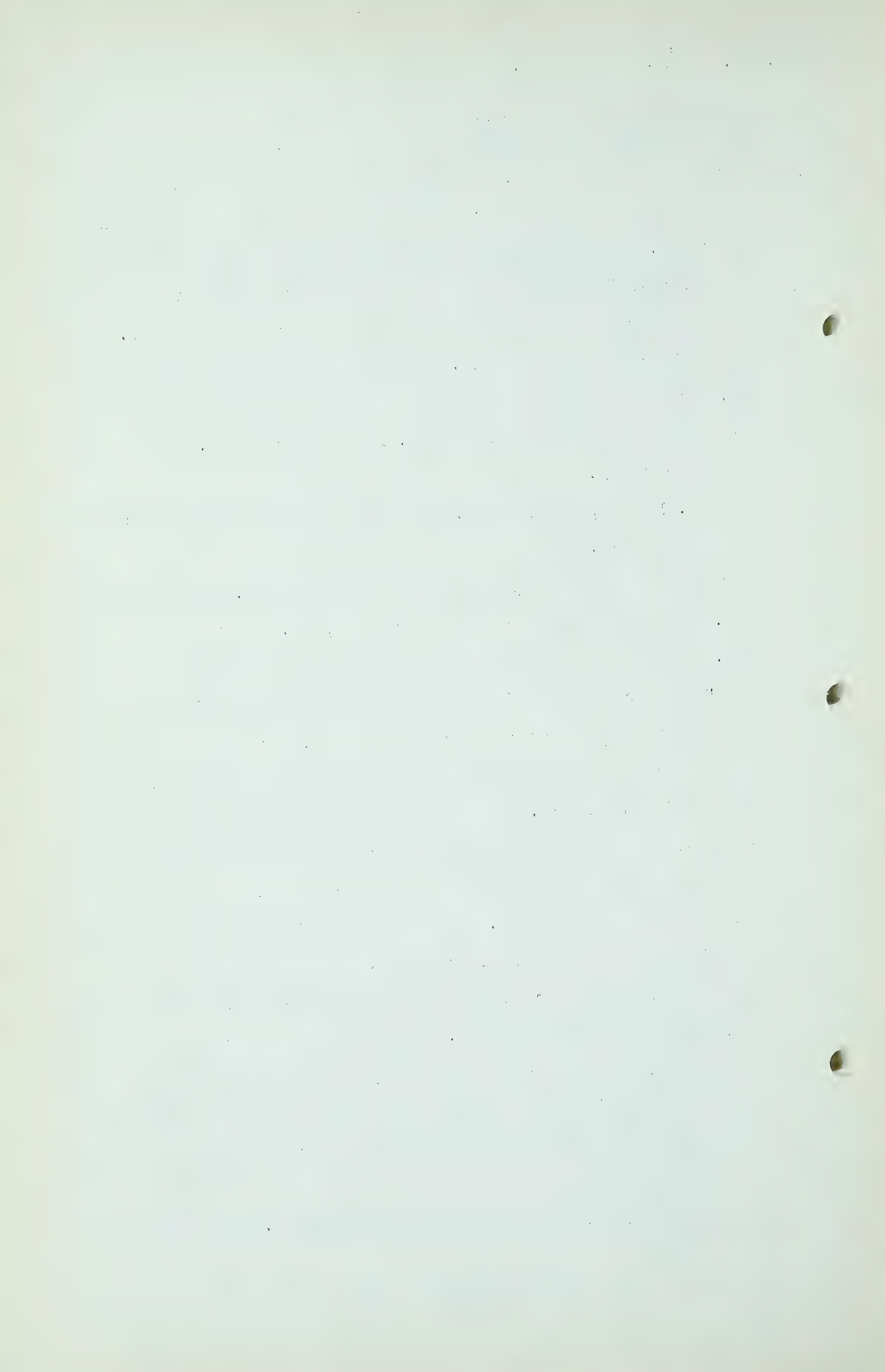
A Oh, I think I had better. Generally the field that we are thinking of is around Pincher Creek.

Q Do you mean what we call the Pincher Creek Field?

A Yes, the Pincher Creek Field. The reason for picking on that field, we are perfectly willing to extend it to other fields.

Q I know you are willing to get anything anybody will give you.

A We do not ask for anybody to give us anything.



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Q Well, let me sit down if you do not want anything from this Board. Can you detail a field? Is Pincher Creek one of them?

A Pincher Creek is one of them.

Q Any place else?

A No. Any other field that the Board thinks we should go to. The reason we picked Pincher Creek was, it is not now connected to any gas gathering system. It is just lying down there, a dead duck. It is not worth any income to the producers, it is a liability. Those producers in turn - - it is not deliverable but in turn I may say that if this Board gave us a right to get some gas out of there, Gulf Oil Company or Canadian Gulf Oil Company, their offer was indicated to the Board with a letter. If they could get reasonable contracts, terms and conditions of a contract, they would make that gas deliverable, therefore we would be glad.

Q Are you calling anybody from the Gulf Company?

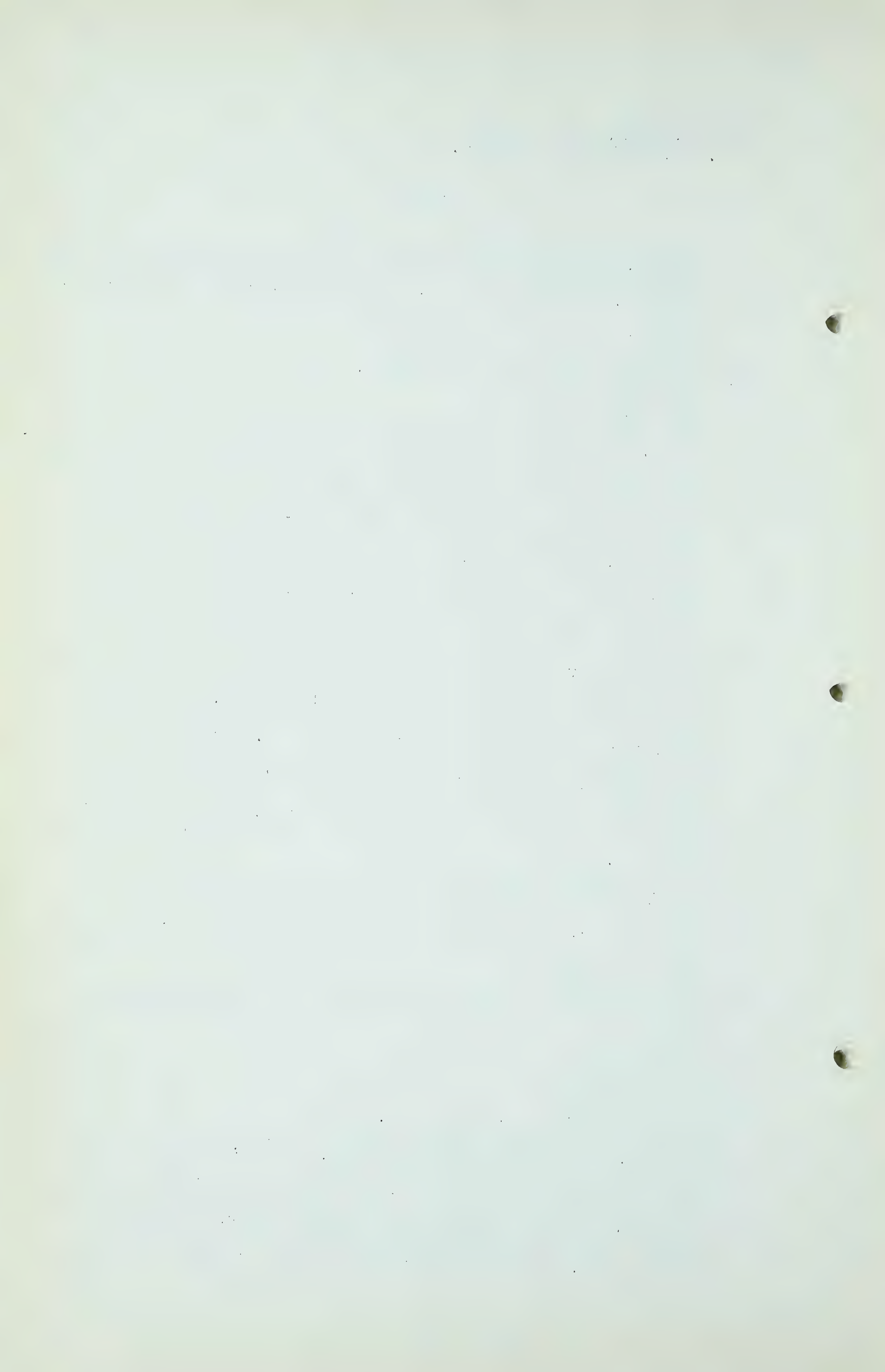
A No, sir. But the Board already has a letter. They have read it to me.

Q There is nobody as far as you know being called from Gulf Oil?

A By this Board?

Q By you people?

A No, we are not going to call Gulf Oil, and I talked to them today and they said they did not see where it was necessary because the Board already had a letter, and that was Mr. Bohart. He is now Vice President and he is down in Tulsa.



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Q Is he in Calgary, by any chance?

A As far as I know, he lives down in Tulsa.

Q If I would like to serve a subpoena I would like to know where to find somebody like that?

A I think he is in Tulsa.

Q In any event, you are not going to call Gulf, Shell or anybody else?

A No.

Q Great hide-and-seek fellows. Now, is there any other field other than Pincher Creek, Pendant d'Oreille, Mr. Macleod's field, have you got your eye on that too?

A No, we didn't have our eye on any particular field, just that general southern area. We will go any place, we are quite flexible.

Q You will go any place?

A That is right.

MR. FENERTY: You might be surprised where we will put you.

Q MR. C.E. SMITH: I do not want to bother you much on this grid system, you have been asked about it before, but can you tell me shortly whether or not you think that the grid system as applied to Alberta is an advantage or a disadvantage, or in terms of yours, you won't say?

A At the present time, due to the present development of natural gas in the Province, it is my personal opinion that a grid system as such is not warranted or justified. If this Board decides there is a surplus of gas which should be exported, that a gas transmission system should be built

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into the southern part of the Province, that then in the future the local utilities and the transportation company should jointly go together on a very cooperative basis and jointly build or extend gathering systems which eventually would build into a grid system.

Q Well, whoever does it, whether it be one or several in cooperation or anything else, do you think it will be necessary, particularly if there is removal of gas from the Province?

A It is not absolutely necessary. It might be a good idea.

Q Well, that does not help us much. Can you go a little further with me on that and say one thing or another?

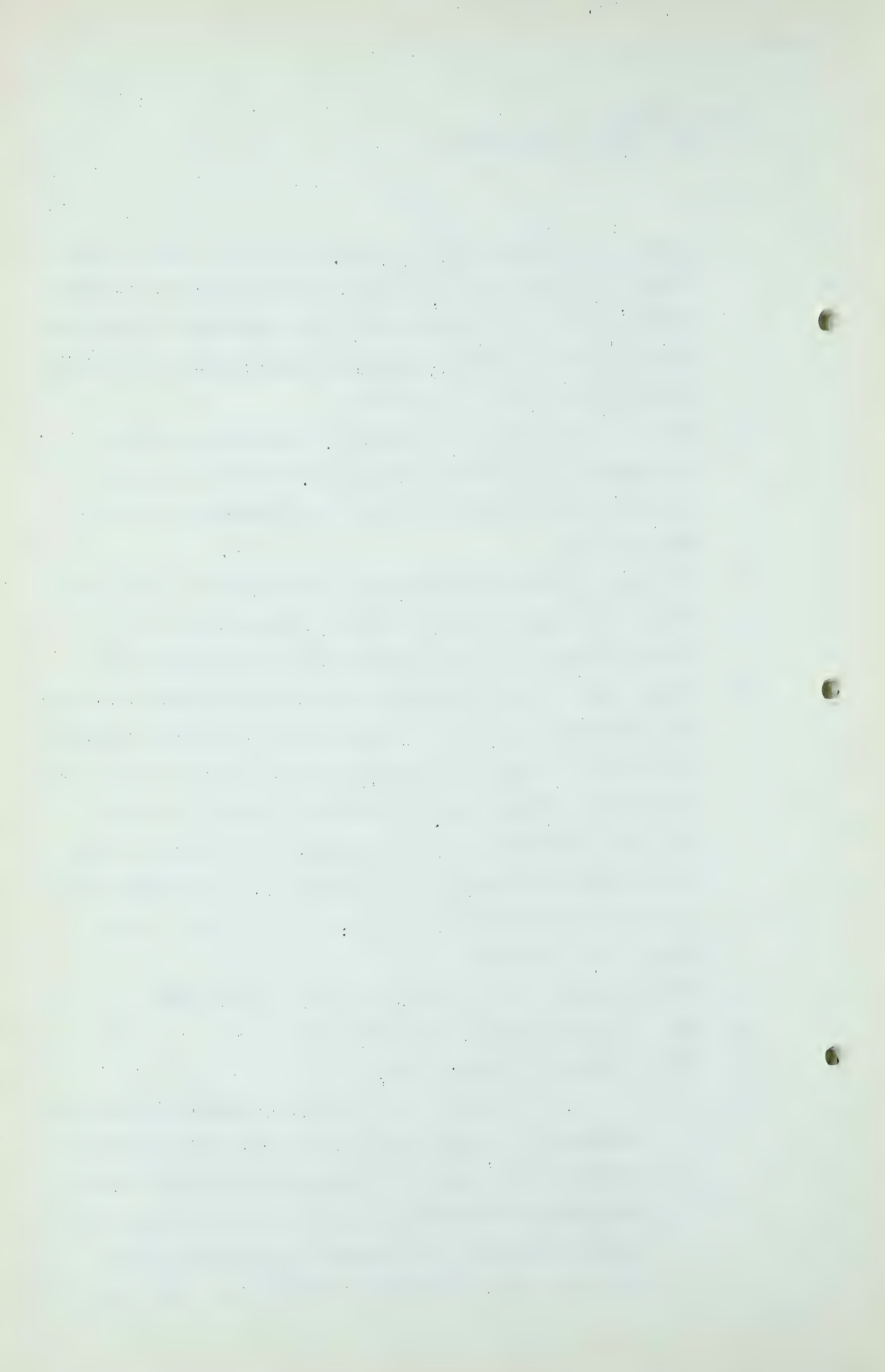
A Yes. Down in Texas we do not have them. Up here it might be a good idea to do it. It is not necessary but I think -- I do think it might be a more economical way to tie in the total gas reserves that are developed in the Province if the local utilities, say both Edmonton and Calgary, would in a cooperative manner come together with a company that is taking gas out of the Province and let them jointly build a grid system.

Q Have you got your amended application before you?

A No. I think counsel might have one.

Q Turn to page 5, paragraph 6;

" In considering the future development of the gas reserves of Alberta and the supplying of an increased volume to the market, the applicant considers that an integrated grid gathering system satisfactory to the Board connecting the important gas fields in the Province, that distribution facilities to the various



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"cities and towns in the Province will be satisfactory."

MR. S.B. SMITH: Why not read the whole sentence. There is another sentence in the same paragraph. I think you should read it all.

Q MR. C.E. SMITH:

"The applicant proposes to construct or to join others in constructing a grid system for the gathering of natural gas and to obtain its additional requirements of natural gas from such a system if and when such system is constructed and the natural gas becomes available."

A I think that is substantially what I have said straight through.

Q Then there is no change in what is said on page 5?

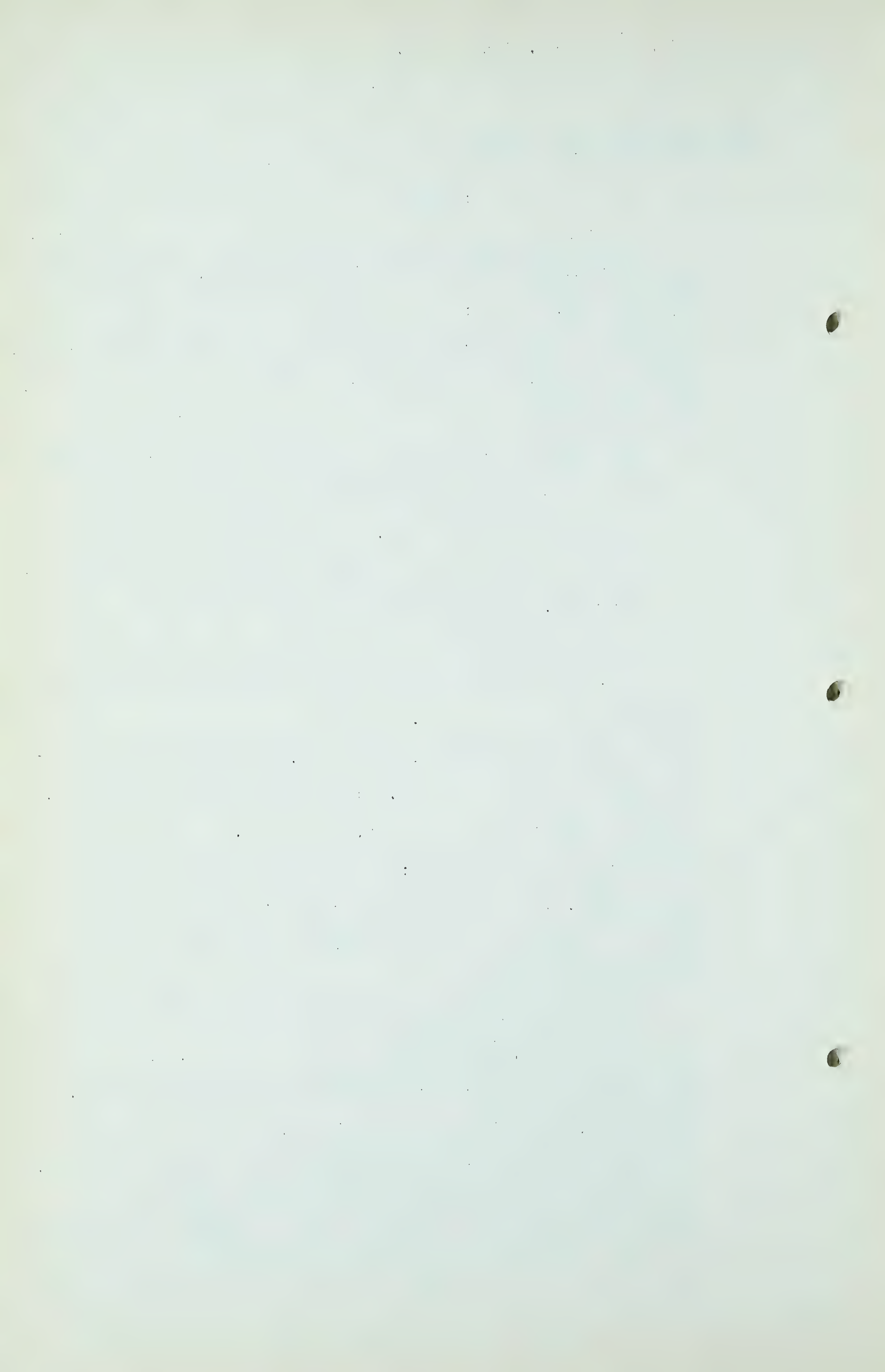
A No. That is right. I do not know what we are talking about on that point.

Q On page 7, at least, at page 7, you say this at the top of the page, Mr. Fish. I do not want to read it all. If your counsel wants it, all right. The third last line of the top paragraph:

".....as the gas producing areas are only now being defined and developed."

Did you have any particular areas in mind when you were talking about that?

A The general middle and southwestern part. I guess you would call it central and southern part of Alberta. In turn, that statement, I believe, is in complete accordance with this other paragraph in this amended application.



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Q I want you to explain it.

A We had in mind it was central and the southern part of the Province. That is where all the gas is at the present time.

Q Is that the best definition you can give of the area, central and southern part of the Province?

A I think personally your area is terrific, you are going to have an awful lot of gas.

Q That is the best you can give me as to the area?

A Yes, that is. I would say the central and the southern part.

Q Still on page 7, clause 1 of your reference to your contract?

A Yes.

Q " The minimum initial quantity of 100,000 MCF per day requested by Prairie to be dedicated to serve the British Columbia market."

A Yes.

Q Is that a reference to Clause 2, I think it is, of your contract, Mr. Fish?

A Well, I would not know unless I went back and looked at it but it means dedication.

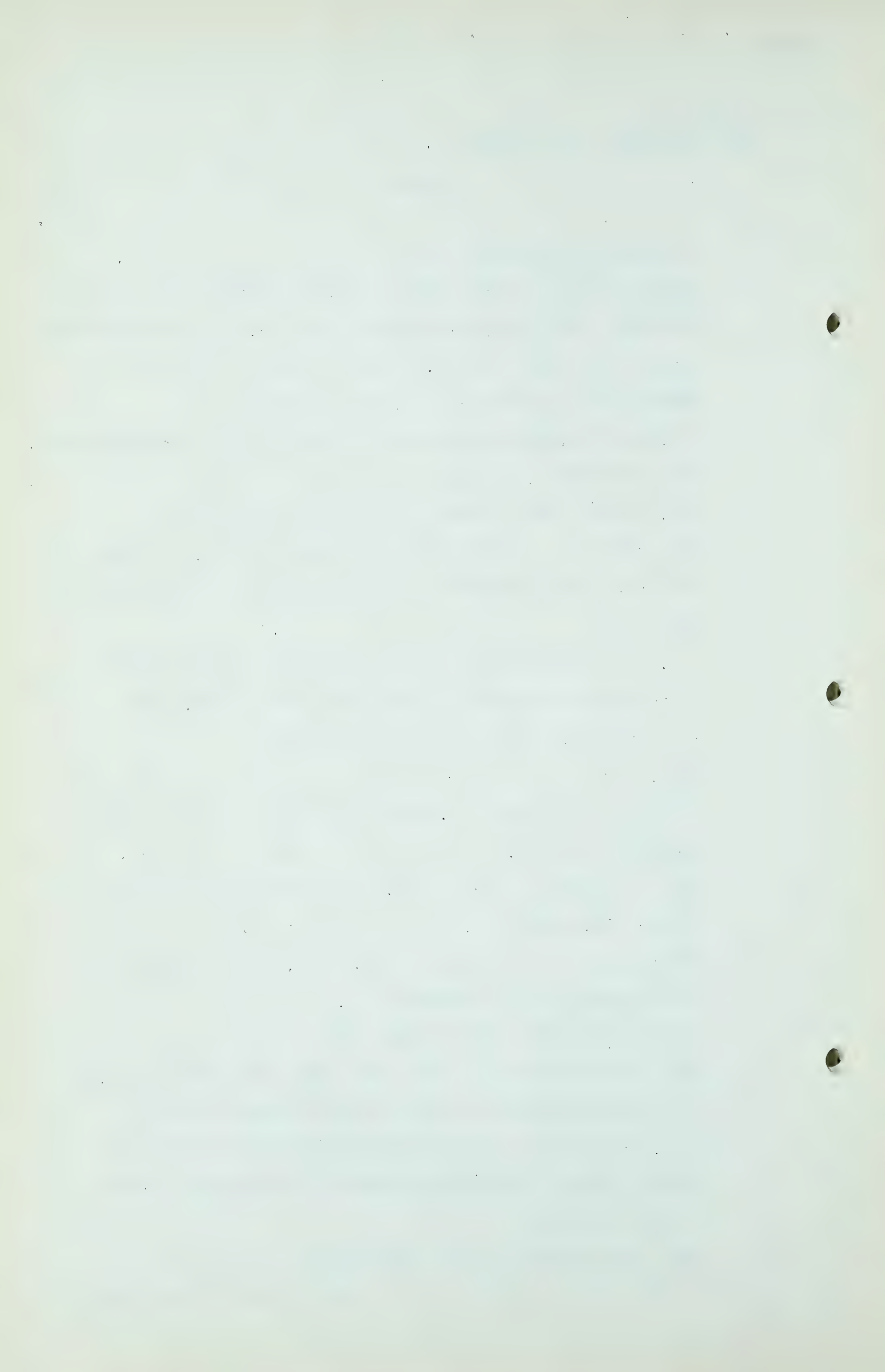
Q Take a look at it, page 2, clause 2 of your contract. It is on page 2 of the contract.

A Is that it, Bob? Yes, I guess that is it.

Q All I am getting at is this, Mr. Fish, that this business of being dedicated to serve British Columbia markets is nothing more than clause 2 of the agreement between the parent and the subsidiary company to substantiate that, is that correct?

A Well, both companies will dedicate it to it.

Q I just wanted to know if it is anything more than clause 2



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of the contract, that dedication?

MR. S.B. SMITH: Perhaps for the information of the Board and my friend, I might say that the companies that we represent here are quite content that that should be a condition of any permit granted by this Board.

MR. C.E. SMITH: Well, that may help a lot, Mr. Smith. I was trying to find out. I wondered if there was anything more.

THE WITNESS: I would not know. You see, I am not a lawyer and I had a lawyer draw up this. I told him what to put in it. You have just got to kind of watch those lawyers.

Q MR. C.E. SMITH: But you signed it, I hope?

A Yes.

Q When was it signed, by the way? Just last Friday?

A That is right, just last Friday. We have been moving fast on this thing.

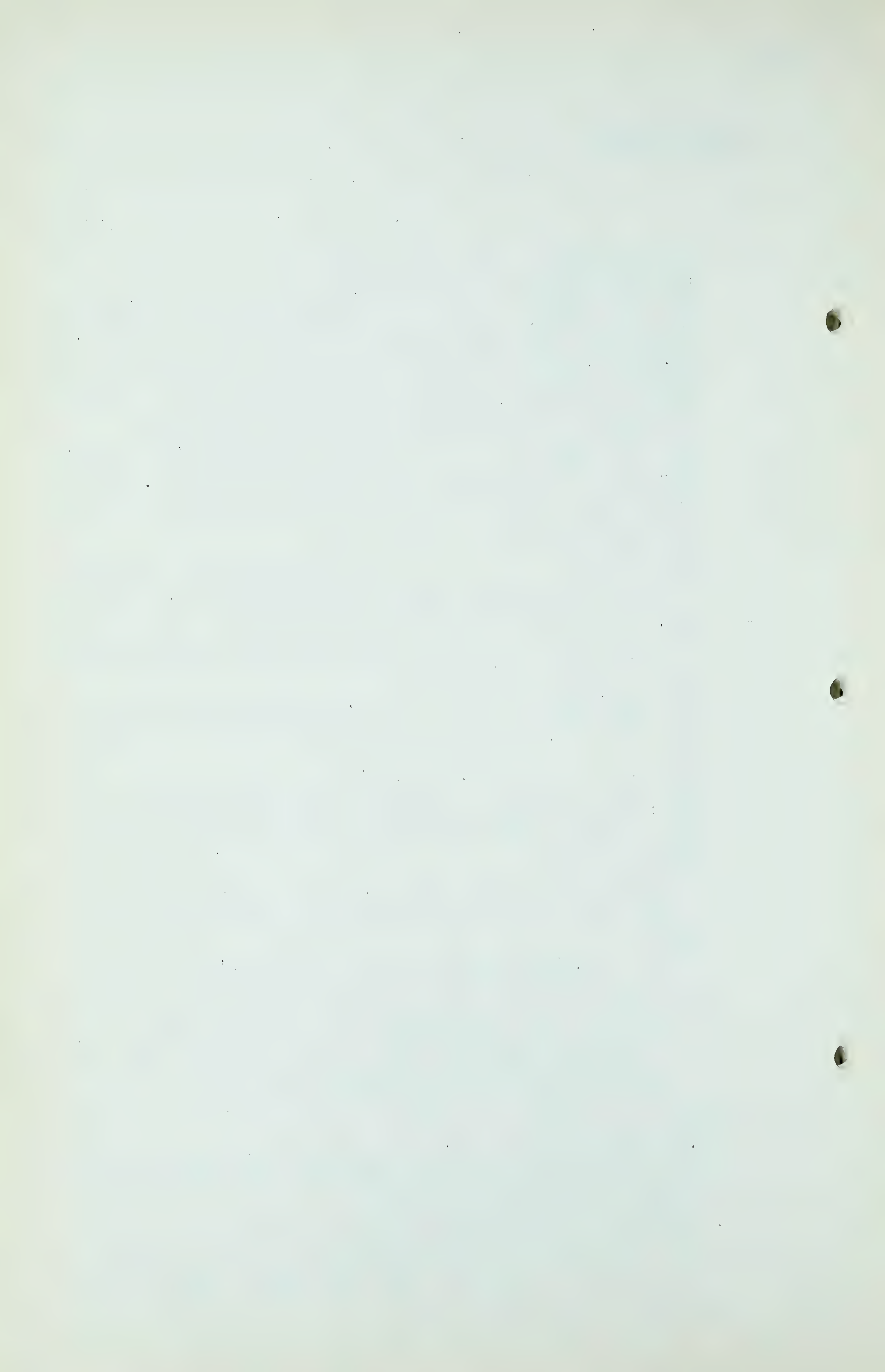
Q I refer to page 8, Mr. Fish, right at the bottom of the page:

" Pacific Northwest agrees to pay Prairie the price of gas in the field, plus treating costs, plus operating costs, plus debt servicing, plus an earnings on its investment capital."

A Yes.

Q And I would like to see any indication, even though approximately, of the price in cents?

A I see that goes back again under the contract to article 3, page 3 of the contract, the same thing. Can you give us what it will amount to?



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Q Yes, I know that?

A Could you give us what it would amount to?

Q Well, can you give me an approximate price?

A I wouldn't hazard a guess. After all, I do not know how much gas is going to cost us up here, whether it is sour gas, sweet gas, or what, and the pressure. You know the cost here.

Q You haven't even considered whether it is going to be 10 cents of \$10.00?

A Oh, yes.

Q Can you give me some approximation?

A It is my understanding that the price of gas at the well-head as set by the Alberta Government, is around $4\frac{3}{4}$ cents.

Q I don't know if that is so.

MR. FENERTY: Yes.

MR. C. E. SMITH: If Mr. Fenerty says so, it is all right.

A Mr. Fenerty agrees with me.

MR. FENERTY: The present price is $4\frac{3}{4}$ cents at the utilities' gates.

A That is fine. We would expect to get it at whatever the going price is. If that is the going price we would expect to get it at the going price.

Q Pardon me, that is at the well -head. It is $11\frac{3}{4}$ cents after it is scrubbed and everything else.

A $7\frac{3}{4}$?

Q $11\frac{3}{4}$ cents. You are going to the good old days at $7\frac{3}{4}$ cents.

R. C. E. SMITH: You will never forget those.

Q But can you give me some idea, Mr. Fish, of what you can pay for it, put it that way?

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A We wouldn't pay any more than that, if that is the price, 11 $\frac{3}{4}$ cents. I would not be interested in building a pipe line up here for anything more than that, and that is for gas that is good clean gas. We can pay that for it, if that is what it is.

Q You can give me some help on that, would you pay 11 $\frac{3}{4}$ cents?

A That is for good, clean pipe line gas.

Q MR. FENERTY: Scrubbed clean.

A And if that is what the going price is, we will pay it.
MR. C. E. SMITH:

Q And if all of those things that you have set out in your exhibit, in paragraph 5, if they amounted to more than that, you wouldn't give anything for it?

A We would have to think it over. I believe in the economics of the project, and I would have to think it over.

Q As Mr. Fenerty said, you are not a straight altruist, or as somebody else has suggested you are not up here to help the Province of Alberta?

A I think we are.

Q Is this Board applying to you to get in on your plum or are you applying to them to get gas?

A We are applying for gas to export from the Province. If you will read my testimony, I think my testimony is very clear.

Q There is no doubt that you are sympathetic with the policy of the Alberta Government?

A I just do not know what you are trying to get at.

Q You are putting it on a money-making proposition?

A We must make money, just the same as any other business.

Q You are not coming up here to give the Province of Alberta anything because you are going to do something with Texas

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gas?

A Oh, I would say on the contrary we are up here to offer real incentive to the Alberta Government.

Q It is for your own private good, profit, or whatever you want to call it?

A I would say, sir, in answering that, that we are all working for a living. You are up here cross-examining me and in that way making a living, and I am trying to do the same thing that you are, trying to make a living.

Q Mr.Fish, you are not coming up here before this Board and saying that this is something lovely, and that "you had better give me a permit or else", or are you? You almost indicate that, don't you?

A Doing what?

Q Do you want me to ask you directly?

A Go ahead.

Q Take a look at your original application, the application of the Northwest, and I am referring to Page 6.

A Which one is that?

Q Your original application?

A Yes.

Q You are familiar with that one?

A Yes.

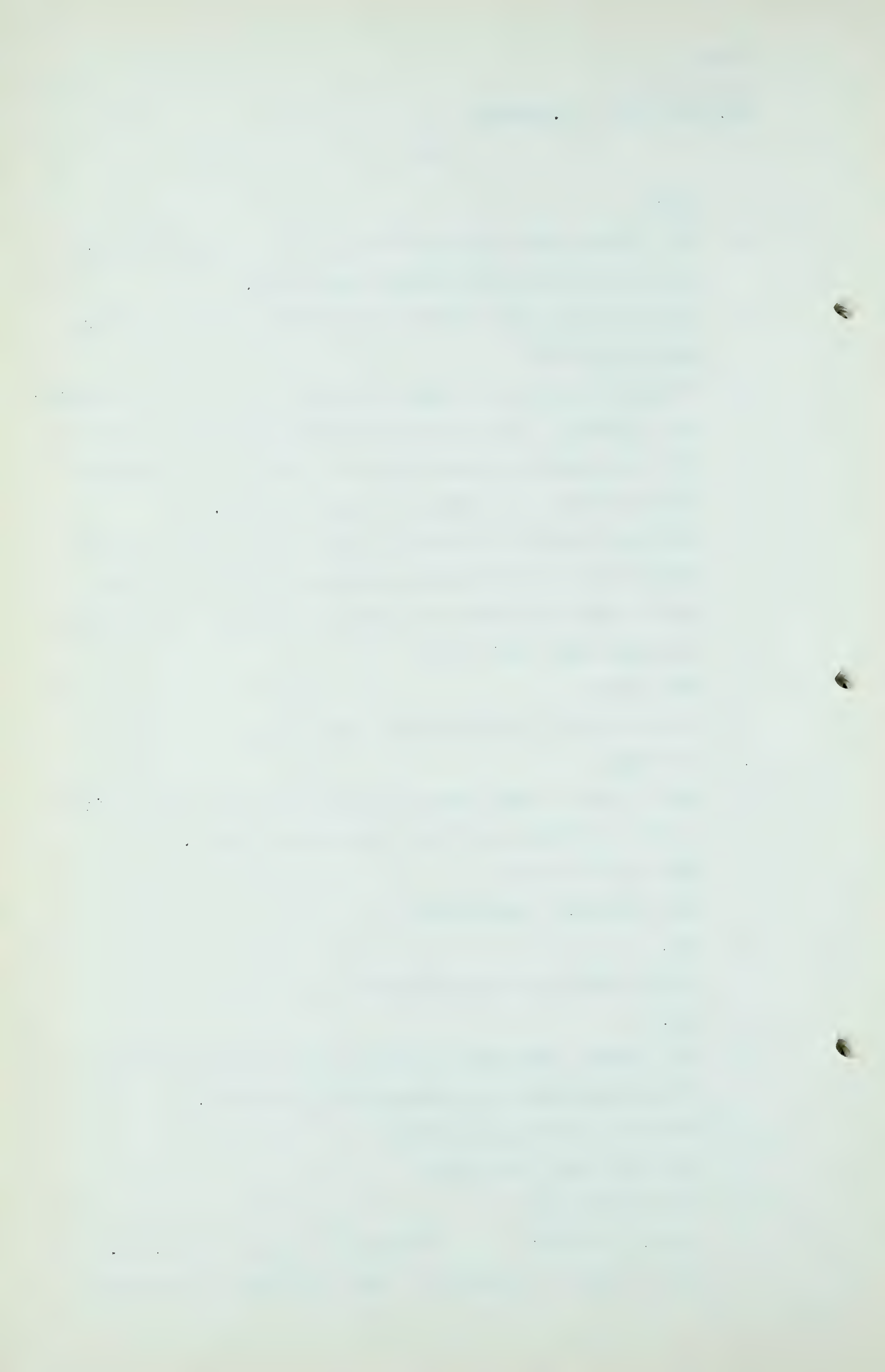
Q The middle paragraph on Page 6, in the last sentence, "Unless applicant can immediately be assured"....

A Pardon me, which one is that?

Q This one that I have here?

A I do not have it.

MR. S. B. SMITH: Perhaps you should state, Mr. Smith, that the application has been formally withdrawn



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in writing. That is correct?

MR. C. E. SMITH: If you are going to get into a legal argument whether it is formally withdrawn, if you will look at Prairie's application, and I refer you to Paragraph 2, Mr. Smith, where you say that the application will conform with the terms and provisions of the application filed by Pacific Northwest Pipeline Corporation.

MR. S. B. SMITH: What page are you referring to, Mr. Smith?

MR. C.E. SMITH: Page 1 of the Amended application.

MR. S. B. SMITH: Let us get the air clear here now, Mr. Smith. It is a fact that the application of Pacific Northwest Pipeline Corporation has been formally withdrawn, and this application is here, and I suppose we can all read the application and ascertain what it does mean? We are endeavouring to adduce evidence in support of the application of the Prairie Companies.

MR. C. E. SMITH: Well, if you want the amended application to conform with the original application of Pacific Northwest, I am sure we are entitled to go into it.

MR. S. B. SMITH: I am not objecting to you referring to it at all.

Q MR. C. E. SMITH: Have you got that there?

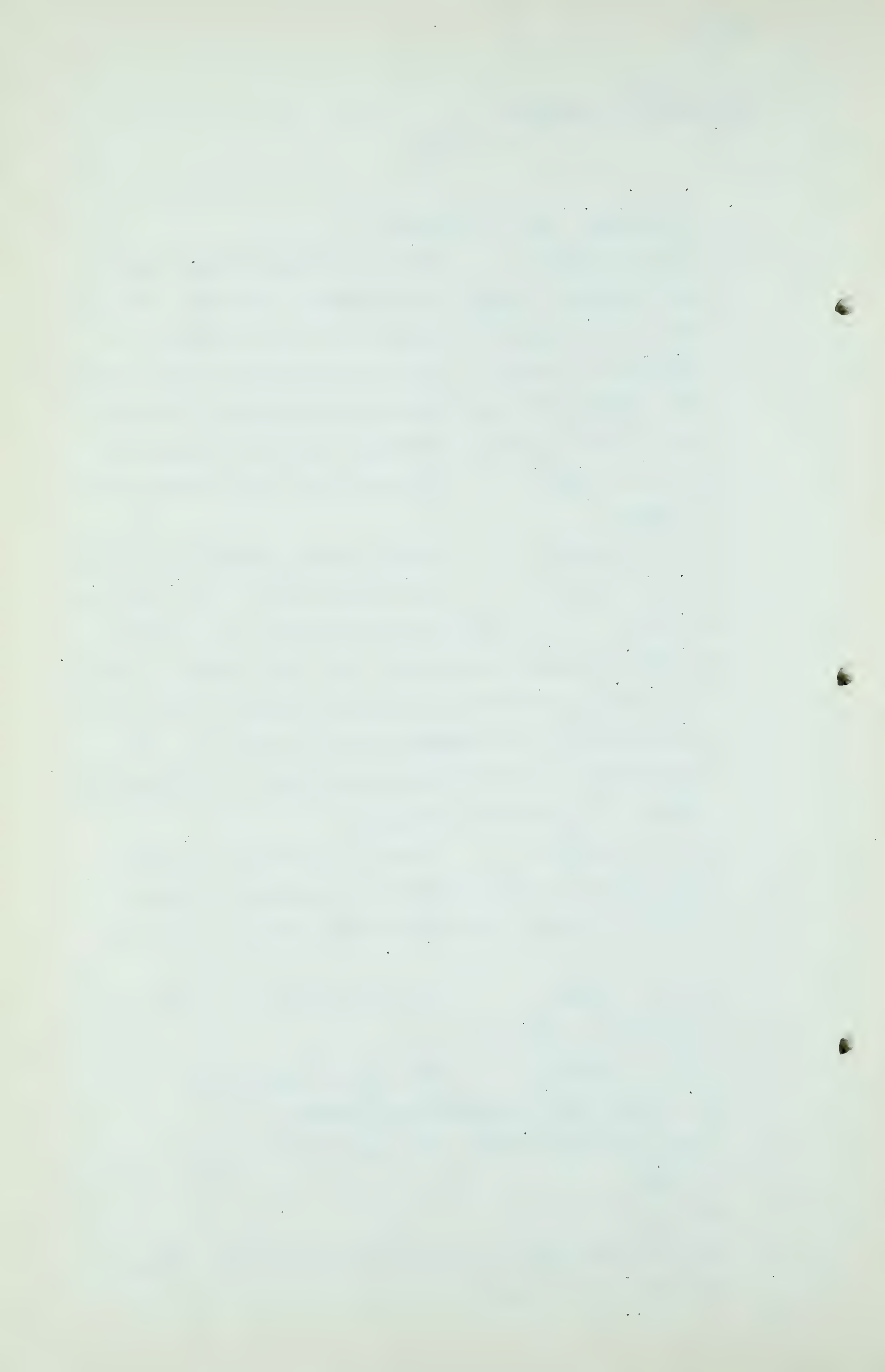
A No, I have just the amended application.

Q I will read this to you, and then give it to you?

A Go ahead.

Q You say....

A What are you trying to get at, that is the main thing we would like to know?



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Q Pardon?

A What are you trying to get at?

Q I am trying to find out whether you want us to be nice to you or whether you want to be nice to us?

"Unless applicant can immediately be assured of obtaining its minimum requirements of 100,000 MCF per day from Canadian gas fields, then it must, of necessity, purchase all of its gas requirements from the United States gas fields, thus excluding the Province of Alberta from participating in this market."

Do you want to read it?

A I am familiar with it.

Q I am glad to hear that.

A I think that is just a reasonable statement.

Q In other words, you are suggesting to the Board to whom this application was made, that unless they immediately assure you of obtaining 100 million cubic feet per day that you are going to take it from Texas?

A That is probably right.

Q I beg your pardon?

A That is probably right.

Q It sounds almost like a threat, doesn't it?

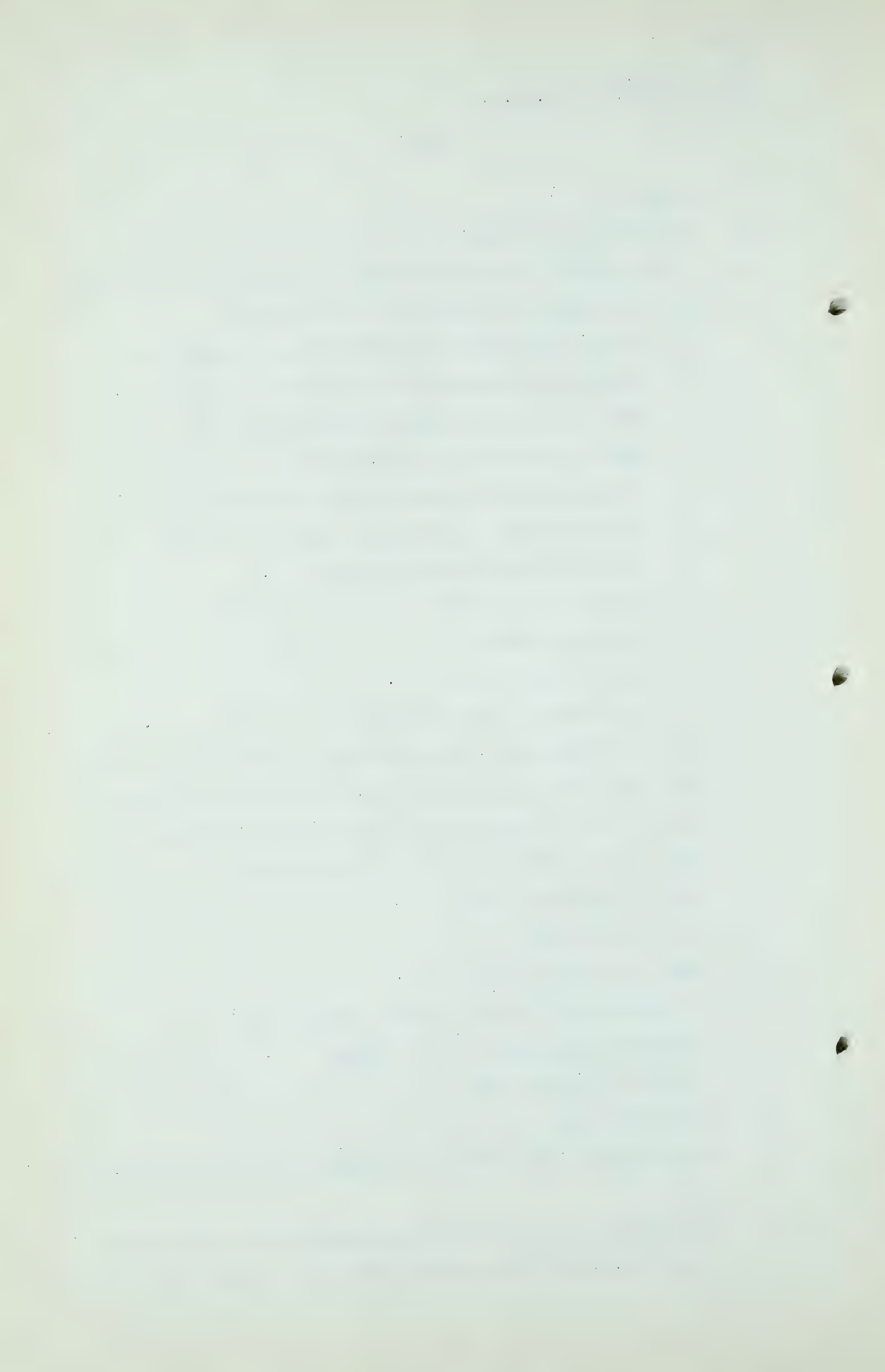
A It was not intended to be a threat.

Q I didn't think it was?

A Definitely not.

Q But certainly that could be interpreted that way, couldn't it?

A But if it is a question of the market to be served with gas, you cannot take forever doing it, you have got to



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get the job done.

Q Tell me this, do you need Alberta gas?

A It will make a better pipeline system.

Q You say that of necessity you have to purchase all your gas. In other words, you would not need our gas?

A We do need it. It fits in very nicely. It makes a better pipe line system.

Q Why?

A It gives us a two-way supply for the market, and it is of a great advantage for the Province of Alberta, and if I were, sir, a resident, as I take it you are, of the Province of Alberta, I would encourage such a venture. It would be a great help in the development....

Q I might agree with you?

A Of the resources of the Province.

Q I might agree with you that what is called the dexport of gas might make gas cheaper to me, and to the gathering system in Calgary than it would if it was not exported. That is not what I am getting at. Do you need Alberta gas for this system that you are contemplating now, Mr. Fish?

A We would very much like to have it.

Q But without it you can go ahead and do the same thing?

A You can do it.

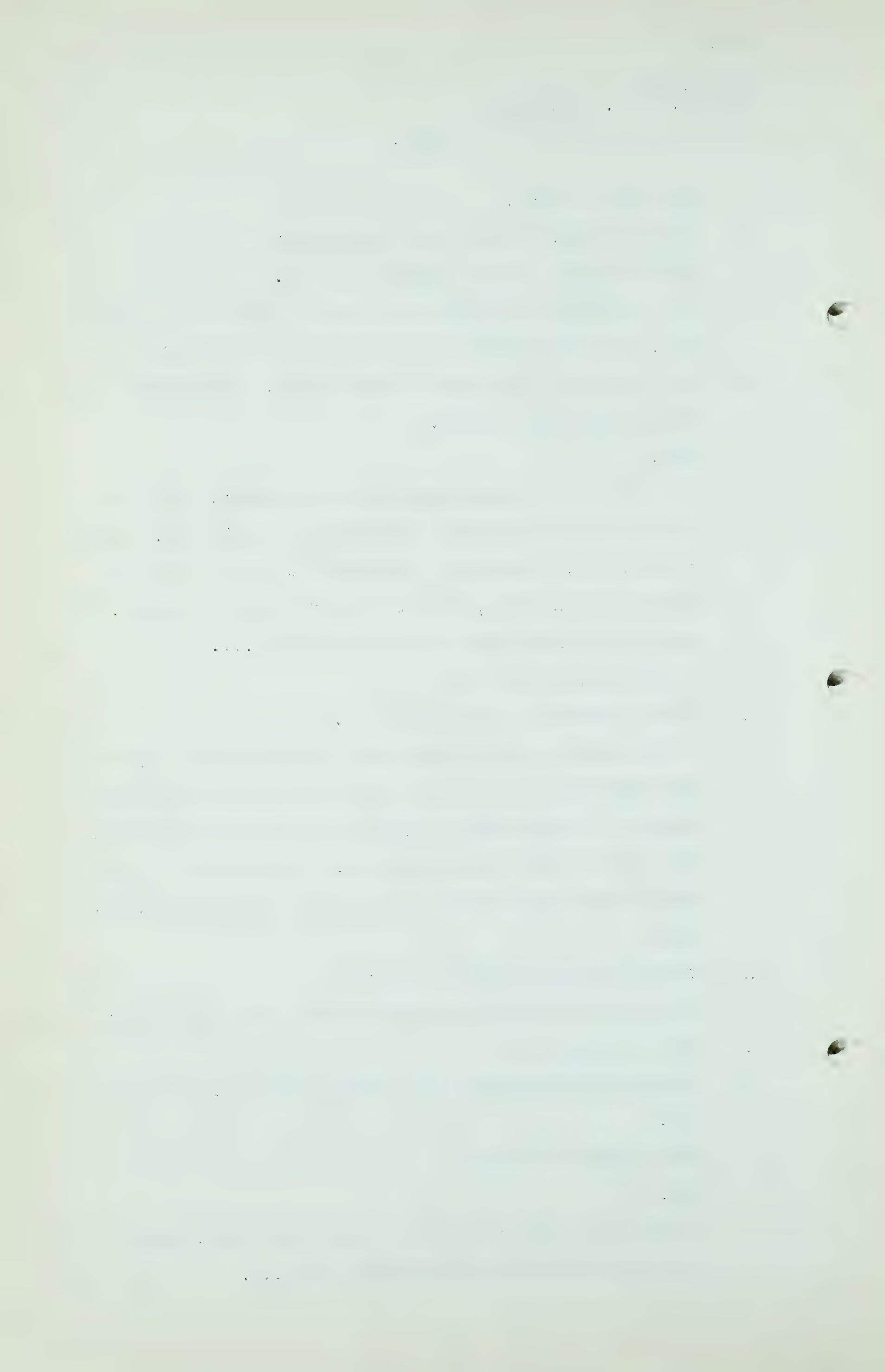
Q You can go ahead with your system without Alberta gas?

A Yes.

Q That is what I thought?

A Yes.

Q Referring to Page 6, at the bottom of the page, "It is considered vital that the natural gas"....



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A Page 6 of which?

Q You haven't got it?

A You are talking about that old one?

Q What do you mean, "that old one"?

A That is withdrawn.

Q Your amended application conforms with this one that I have in my hand, so that it cannot be old?

A Yes.

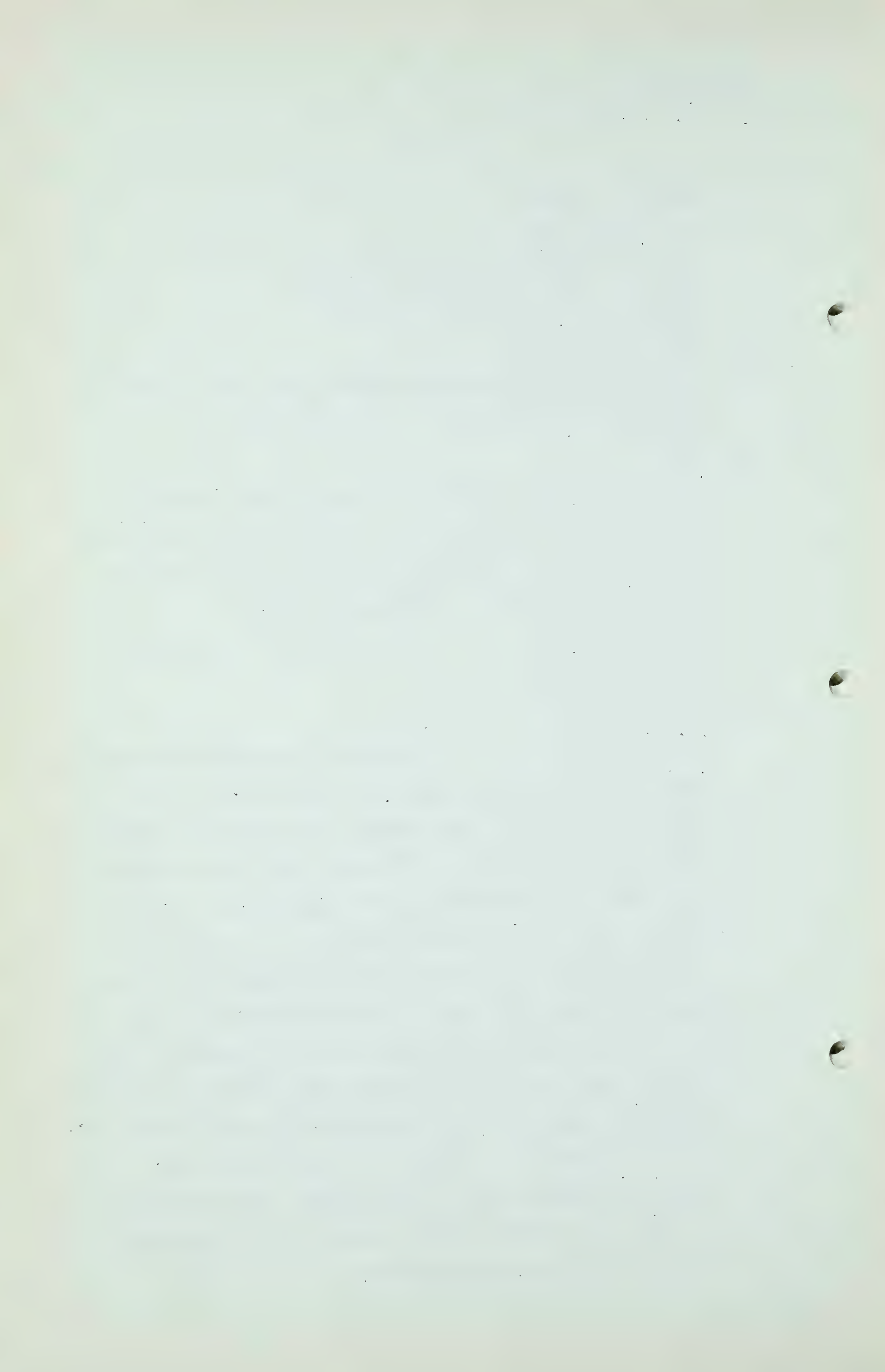
Q "It is considered vital that natural gas be immediately made available to the proposed market area of the Pacific Northwest, as the fuel requirements of this region are extremely important to hemispheric defence."

MR. S. B. SMITH: Do you mind if I interrupt just for one moment?

MR. C. E. SMITH: No.

MR. S. B. SMITH: To suggest I do not want that paragraph to be misinterpreted, that is all. Our amended application states that "the applicant herewith amends the application referred to above to conform with the terms and provisions of the application." Now, it may be a matter of interpretation as to whether it does conform or does not conform, but the application itself pending before this Board is the amended application of Prairie Pipe Lines Limited and Prairie Transmission Lines Limited, and the other application was withdrawn formally some weeks ago by Pacific Northwest Pipeline Corporation.

MR. C. E. SMITH: Let us be fair about that. Mr. Smith, my understanding of the amended application is that it said that Prairie was to conform in their application to Pacific Northwest's application.



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MR. S. B. SMITH: I do not think it says that at all.

Q MR. C. E. SMITH: May I ask you this, then, Mr. Fish, when you referred to hemispheric defence, is that a consideration that we might all have or some information you may have from higher authorities? I think Mr. Herring referred to something in his brief about it?

A I think that is a broad and general statement. And may I not ask if the Board here did not receive a letter from Mr. Howe to Mr. Tanner, which was given this Board, where even the head of the Munitions Board of the United States requested Mr. Howe or stated that another fuel was needed for the Pacific Northwest.

Q We are agreeing. I am not quarrelling with you?

A What are you getting at then?

Q I agree with you on that, we had that information from Mr. Howe and Mr. Tanner. I was just wondering if there is any information the Board should have?

A I do not think there is.

Q There is just the general statement that we might all feel that way, is that your suggestion?

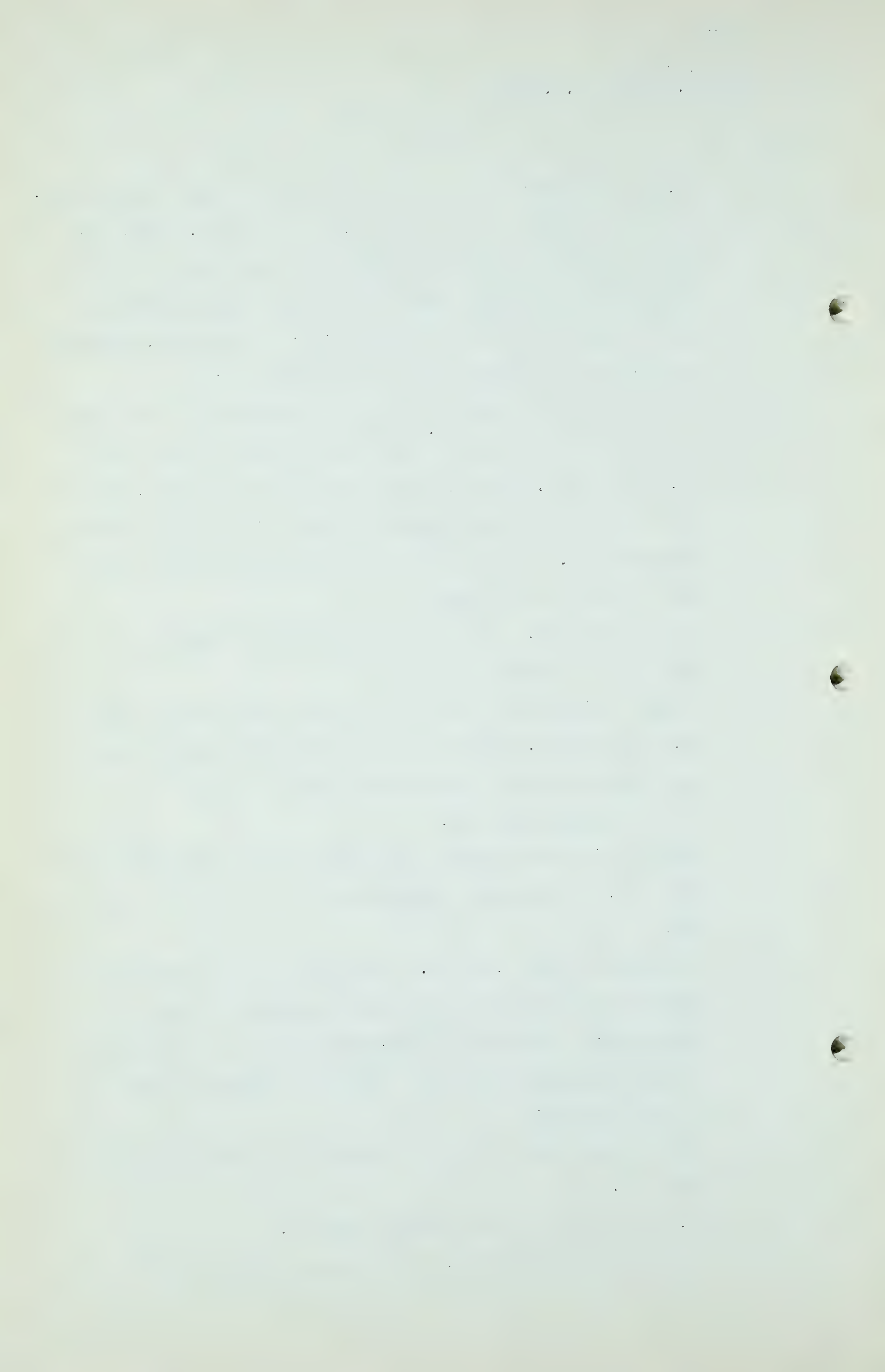
A Yes.

Q I wanted to clear that up. Frankly, I do not want the Board to be put in the position by somebody saying, "hemispheric defences are important, and you fellows did not pay attention to that." There is nothing to that, in your opinion?

A Down in that area - if you want me to go into a speech about it.

Q No, I am sorry, I do not want a speech.

Q I can give you a speech. I can make a speech on it



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and I will be very happy to do it.

Q All I want, is there any information from any Governmental authority that we should have?

A To answer that, sir, I will have to make a speech of about ten minutes, and if at another time I can satisfy you, I will be glad to.

Q I will withdraw the question then?

A All right, have it your way, sir. I am very flexible.

Q That has been proved from what I have read. Referring to Page 2 of the contract?

A Yes?

Q Of the contract?

A That is of Exhibit 1?

Q Yes, the pages are numbered.

A You know, for a while I thought you were an engineer, but, by golly, I now have it in mind that you are a lawyer.

Q I am usually on that side of this box. At the top of Page 2, Mr. Fish?

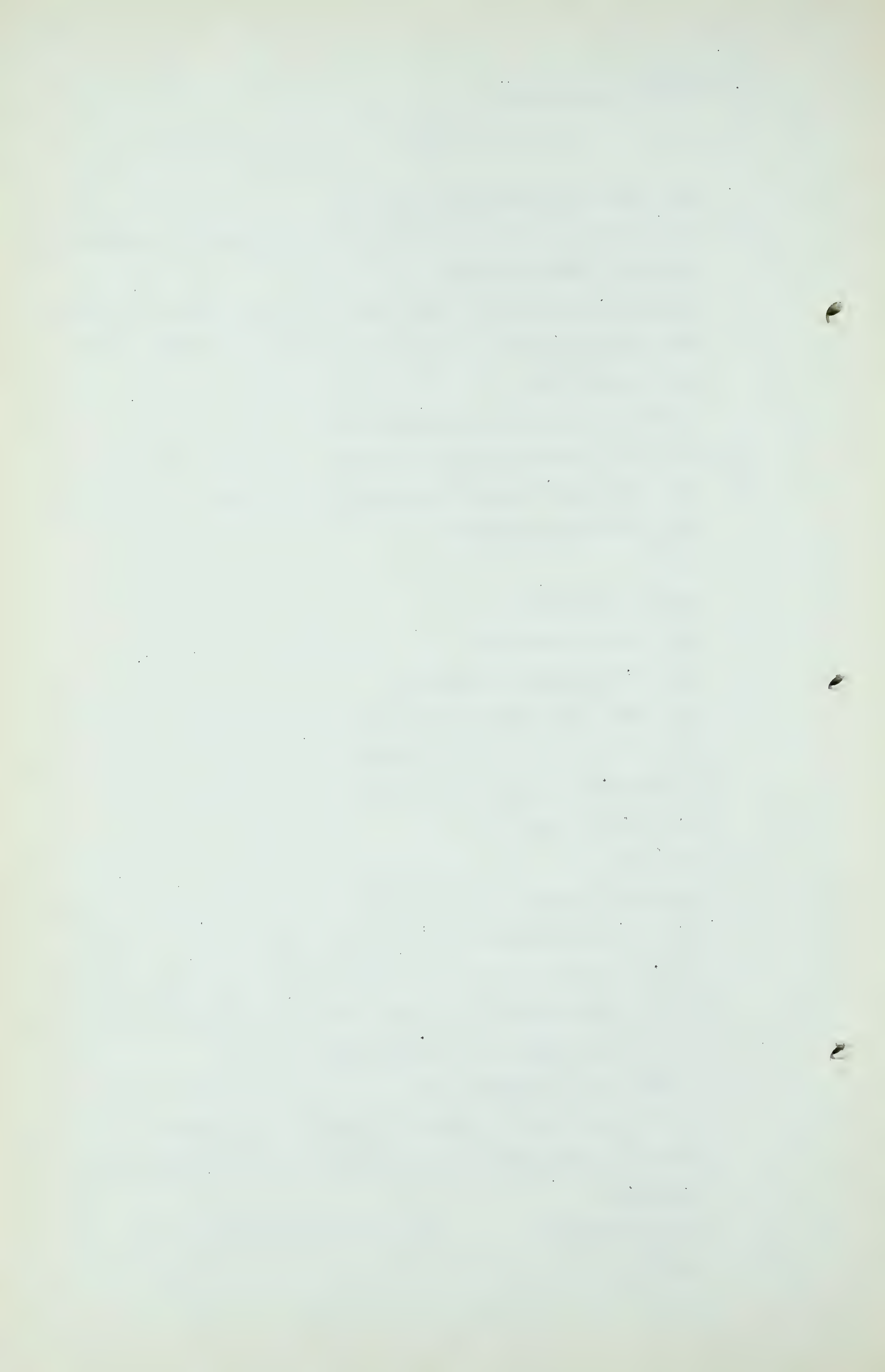
A Yes, sir.

Q "Prairie agrees upon the execution thereof to use diligent good faith effortsto acquire natural gas or gas reserves in the Province of Alberta, Dominion of Canada, and adjacent areas." The contract was only signed on Friday. We have not had much chance of looking over it.

A We have been working on it.

Q That is what I want to ask you about. Had Prairie anything along similar lines before the execution of this contract?

MR.S. B. SMITH: That is as to acquiring gas reserves?



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MR. C. E. SMITH: Yes?

MR. S. B. SMITH: We have certain formal contracts which were entered into, I think, all in April, 1950, duplicate originals, and those were furnished to this Board several months ago. I have these and will be glad to make them available, if you would like them, Mr. Smith.

MR. C. E. SMITH: I think the Board would be interested.

MR. S. B. SMITH: For the purposes of the record I have here an agreement between Prairie Pipe Lines and P. S. and D. Oils Limited, dated the 8th day of April, 1950.

THE CHAIRMAN: That will be Exhibit 9.

AGREEMENT BETWEEN PRAIRIE PIPE LINES
AND P. S. AND D. OILS LIMITED MARKED
EXHIBIT 9.

MR. S. B. SMITH: An agreement of the same date, the 8th day of April, 1950, between Federal Oils Limited and Prairie Pipe Lines Limited.

AGREEMENT BETWEEN FEDERAL OILS
LIMITED AND PRAIRIE PIPE LINES
LIMITED MARKED EXHIBIT 10.

MR. S. B. SMITH: The third one is between Denhart Syndicate and Prairie Pipe Lines Limited, dated the 8th day of April, 1950.

AGREEMENT BETWEEN DENHART SYNDICATE
AND PRAIRIE PIPE LINES LIMITED
MARKED EXHIBIT 11.

MR. S. B. SMITH: The fourth one, of the same date,

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between Dawson-Steveville Syndicate Trust and Prairie Pipe
Lines Limited.

AGREEMENT BETWEEN DAWSON-STEVEVILLE
SYNDICATE TRUST AND PRAIRIE PIPE
LINES LIMITED MARKED EXHIBIT 12.

MR.S. B. SMITH: And the fifth one of the same
date as between Henry S. Flock and Prairie Pipe Lines
Limited.

AGREEMENT BETWEEN HENRY S. FLOCK
AND PRAIRIE PIPE LINES LIMITED
MARKED EXHIBIT 13.

MR. C. E. SMITH: How many is that, Mr. Smith?

MR.S. B. SMITH: Five.

MR. C. E. SMITH: Exhibits 9, 10, 11, 12 and 13.

MR.S. B. SMITH: Yes.

MR.NOLAN: I wonder if it would be possible
to let us have copies of those?

MR.S. B. SMITH: I haven't copies of them now, but
I will be glad to get you copies as rapidly as I can.

MR.MAHAFY: Do those carry separate exhibit
numbers?

THE CHAIRMAN: Yes, Exhibits 9 to 13.

MR. C. E. SMITH: Those are from 9 to 13.

Q I think, Mr. Fish, with that that I will not ask you
anything further.

A Thank you, sir.

(Go to Page 173).

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CROSS-EXAMINATION BY MR. FENERTY:

Q I would like to ask a question arising out of an exhibit which was not filed at the time I conducted my cross-examination. Mr. Fish, I should like to ask you something about this Exhibit 8, which is an application before the Federal Power Commission, and on page 13 the following occurred. I will read it.

"Estimates of Total Revenues to be expected from proposed facilities, total fixed charges and total operating expenses, will be shown on an exhibit to be subsequently filed and made a part hereof. This statement will contain information covering the rates proposed to be charged by applicant and the expected sales and revenues to be derived."

I take it that the total operating expense includes the price paid for the gas?

A Yes. What page is that on?

Q Page 13, dealing with the application for a Certificate of Convenience and Necessity in connection with a pipe line to the Pacific Northwest?

A Yes, I see.

Q You see that paragraph I mentioned there?

A Yes.

Q And this expense includes the price of gas, the price you pay for the gas?

A Yes, you would have to have the cost of the gas in there. Could you give me that page number again?

Q Page 13. That is in the photostatic copy.

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A Yes.

Q The second last paragraph. Now, that information, I take it, is necessary not only for the Federal Power Commission but it is necessary for financial purposes. I mean in connection with the financial question you want to know how you are going to make out in these things?

A Oh, yes.

Q I take it, therefore, in the transmission of Canadian gas, we will say, through to British Columbia - you understand it is an exchange theoretically. Just the transmission?

A Yes.

Q For financial purposes you must necessarily have the same details and I was wondering if you could let us have that statement and file it?

A We do not have it completed, sir.

Q You are serious in the application for a pipe line to take the gas out?

A That is right.

Q And I take it you must necessarily have convinced yourself and anybody associated with you financially, convinced them that this is a financially sound proposition?

A Yes.

Q And I suppose that you must have gone into the same details that you filed with the Federal Power Commission. Now what I am interested in is what price you would be paying for the gas?

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A I am not surprised if you were, but all that concerns the Federal Power Commission hearing will be filed before the time of our hearing.

Q I am going to forget the Federal Power Commission but I am not going to forget that your financial co-operators require that information, as any man in his sound senses must require it before he puts money into it?

A Yes.

Q And I am asking you first of all in connection with the supply of gas to Vancouver, you have to meet the competition of bunker and fuel oil competition?

A Certainly?

Q And we have information about the Portland industrial load that you have to get down to 20 cents per thousand cubic feet of gas for industrial purposes?

A Did I say that?

Q I do not remember. That was said on two or three occasions.

A I did not say that. I want to make the record clear. Do not get me wrong on that.

Q Now you have told me that you have to file this information with the Federal Power Commission?

A That is right.

Q And you have told me that you had to get this information for two purposes, one, for the Federal Power Commission, and two, for financial reasons, that we are interested in. I am asking you for the information relating to the Canadian supply of gas to Canadian facilities in British Columbia, which you have told me must be available for financial purposes. Now,



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can I have it?

A Now, may I correct that? Prairie is not marketing gas in British Columbia. The gas is dedicated to it, but Pacific Northwest is marketing the gas.

Q And how much did you tell us would be the pipe line cost for taking the gas to the Canadian market?

A Well I think it was around \$14,000,000.

Q And I know it is small, but at the same time I take it before you spent the 14 million you had in mind the very questions you went into before you spent the 100 million dollars in Texas?

A That is right.

Q Now would you let us have that?

A It is not available. In fact, I do not have it with me.

Q Have you got it anywhere?

A I am not prepared to say what our final rates will be. We have not got down to what we are going to charge.

Q In what you are going to charge is involved what you pay for the gas, among other things? You have to charge more than you pay for it, haven't you?

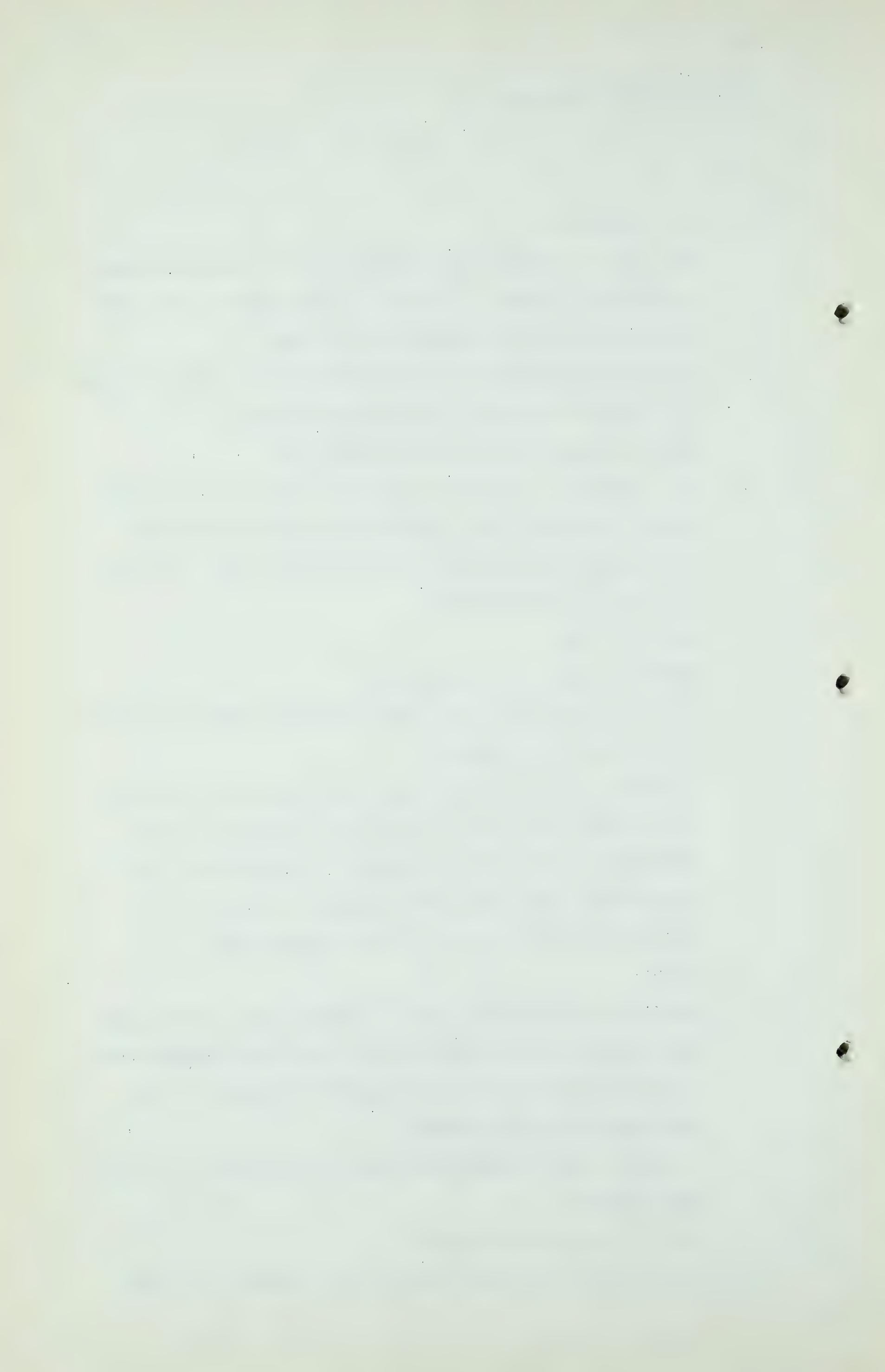
A Sure.

Q You have to know what you are going to pay for the gas, then for the cost of transmission and distribution, and I want to find out what you figure on paying as the well-head price in Alberta?

A I think I have answered that but I will answer it more specifically.

Q Is it 9 cents or 10 cents?

A I understand the well-head price in Alberta is fixed



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by the Alberta Board now at a cost of $4\frac{3}{4}$ cents. The treating cost brings it up to $11\frac{3}{4}$ cents and we will pay that for it.

Q You are going to pay any price, shall we say, that is set by the market?

A The market price.

Q That is what you mean by comparable price?

A That is right.

Q You figure that you have got to pay a certain price to meet the competition at the Coast?

A No. I would say that is not right. We know what it is going to cost to bring it there and how much it is worth here.

Q Then you are telling me that you do not care what the price is you pay here, whether it is 3 cents or 15 cents, that is what you are telling me now?

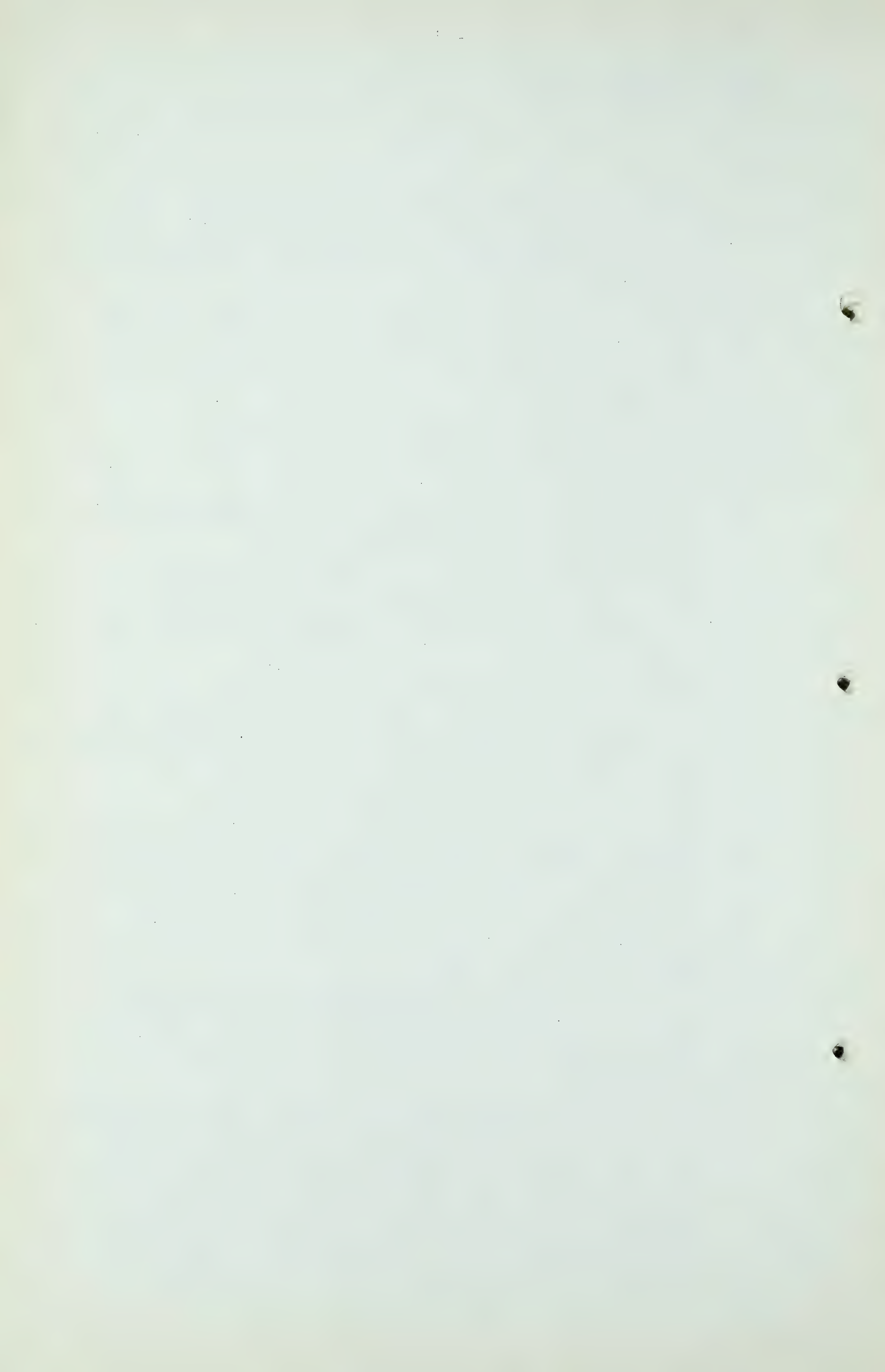
A No, I do not know that I am.

Q Then you refuse to tell me what the figure is again?

A I am going to have to negotiate with the producers as to their price, or based on what the Alberta Board says should be the price.

Q Is not that going to affect whether or not you can build a pipe line and how much you can sell it for at the coast?

A Not exactly. It is a matter of our own economic studies. When you look at our background, we have built or are building 360 million dollars worth of pipe line and myself and my associates have made these studies and with that background we think that we can deliver and



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build this pipe line economically sound.

Q You are talking about a 14 million dollar pipe line here?

A Yes.

Q And I have reason to believe that you can speak with complete authority, you know exactly where you are going?

A Yes.

Q And we want to know where you are going, as far as the Canadian gas is going?

A That is right.

Q You can tell me how much the Texas gas is going to cost but you cannot tell me anything about the Alberta gas. Now you say that we have to have a certain price where we can meet competition at the Coast. I think I can say that is your position?

A Not altogether, no.

Q Well, will you tell me why?

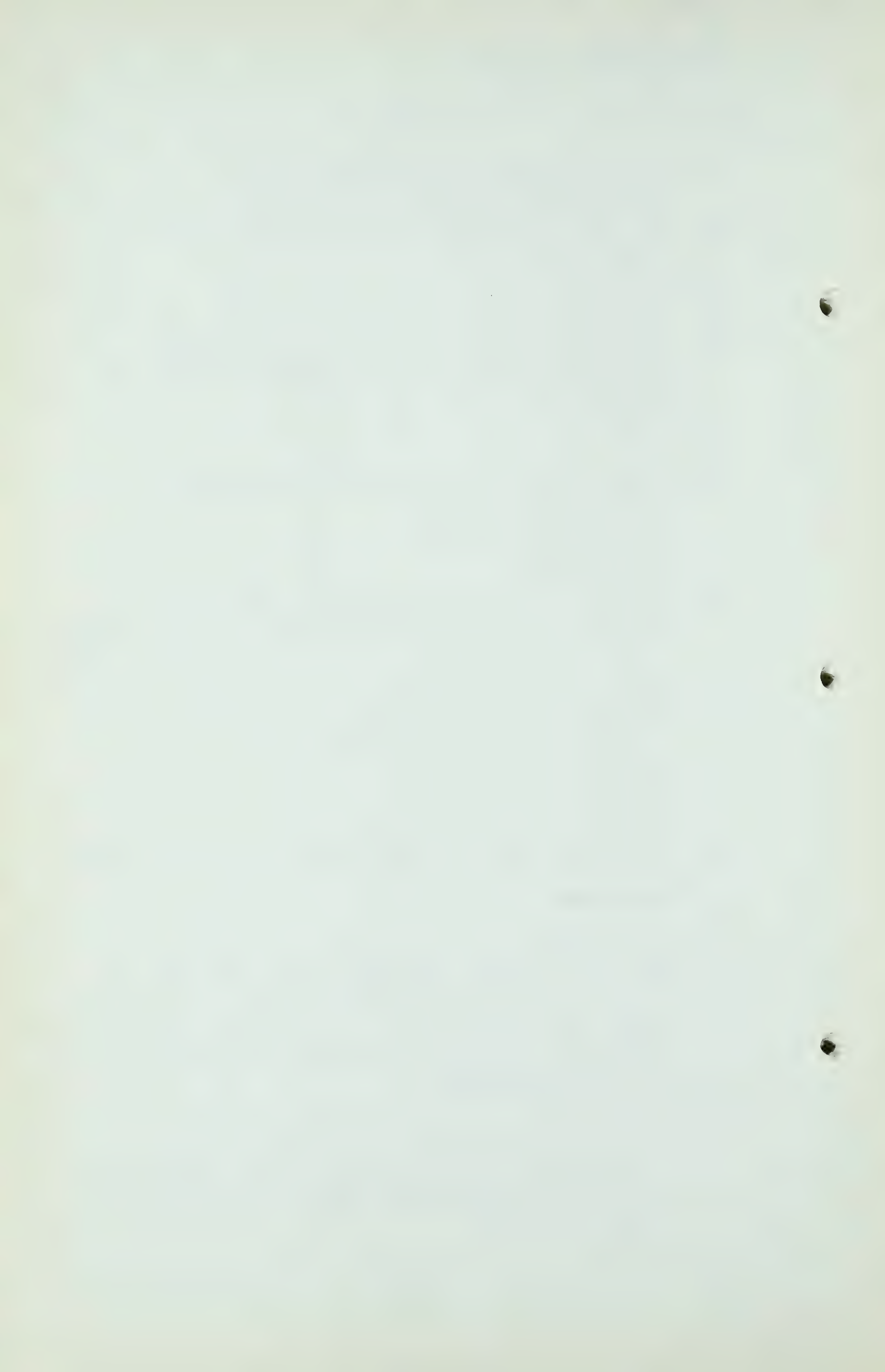
A It is easy for me to explain if you will take a clear statement.

Q I'll take it.

A We are here before this Board asking the right to export a minimum of 100 million cubic feet of gas per day to be dedicated to Vancouver, British Columbia and the Victoria markets.

Q Yes.

A I am selling that gas to these utility companies. The utility companies have expressed the desire to purchase the gas.



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Q At any price?

A Not at any price. At the going price, or a reasonable marketable price.

Q Do I understand the utility companies are prepared to take it at any price and are prepared to buy it at any price?

A No, sir, that is not so.

Q Then just what are the prices? You know what they are, otherwise you would not have gone into this thing. Cannot you give us a statement on these figures?

A I think I can give you the only answer I can give you and that is in purchasing gas we expect to purchase it at competitive prices that gas is going at in the area.

Q Can you tell me what the competitive price would be in competition with fuel oil in Vancouver?

A No, sir, I will not tell you. I cannot tell you.

Q You do not know?

A I do not know.

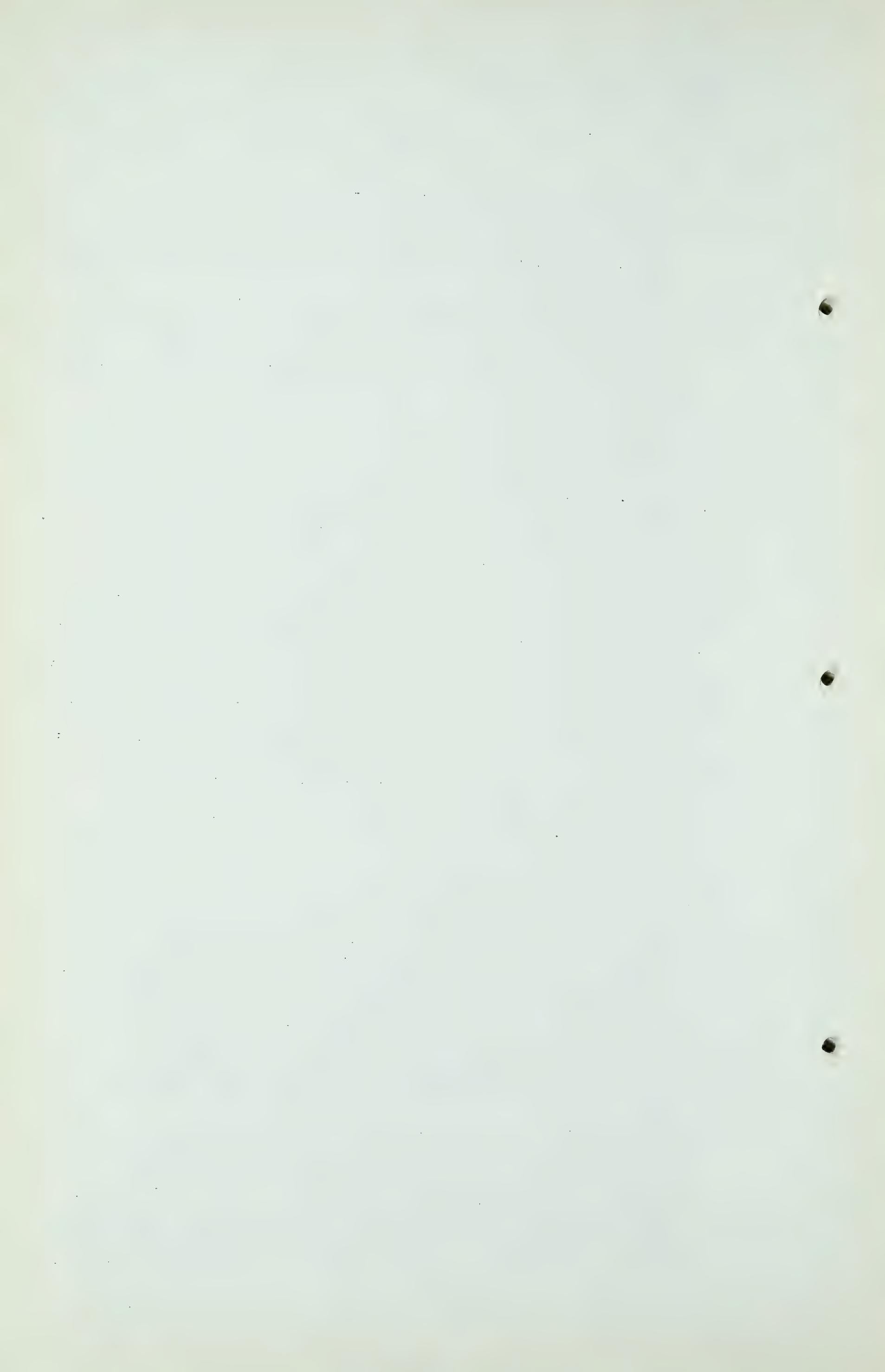
Q You have not gone into it?

A I know what the over-all economics of our project are. I know we expect to buy our gas at the well-head cost of $4\frac{3}{4}$ cents plus the treating cost. We will even build treating plants to treat the gas, if necessary.

Q But you do not know what you expect to buy your gas for?

A We will pay and expect to pay $4\frac{3}{4}$ at the well-head, plus the treating costs.

Q Have you worked out your market or load, your industrial load in relation to the $4\frac{3}{4}$ cents at the well-head?



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A We have worked out our Pacific Northwest - -

Q I am talking about the Canadian end of it?

A The Canadian end, we are buying the gas up here. The Prairie is simply buying the gas and transporting it. The Prairie is prepared to pay the price for this gas, the going price of the gas.

Q You are, in effect, dedicating it to this Canadian market. That is the appeal you make to this Board?

A That is right. We are dedicating it, that is right.

Q Your load factor for British Columbia and your industrial or peak load, your known continuous load - I have forgotten the exact word - all of these things you know and have to know in order to finance this Canadian pipe line?

A We are not isolating Vancouver or the Province of British Columbia as a separate entity in this particular application. We are very fortunate in the Pacific Northwest in that we have the three companies, the B.C. Electric Company, the Seattle Gas Company and the Portland Gas Company, those three companies are working all together. We intend to serve those areas at the same price.

Q I am really concerned about this. This is not, as far as Canadian gas is concerned, something in the nature of a red herring. Is this your position, that if you get a permit and if you have to buy gas in Vancouver at a price that you have to charge and make an operating profit, are you serious in your statement that

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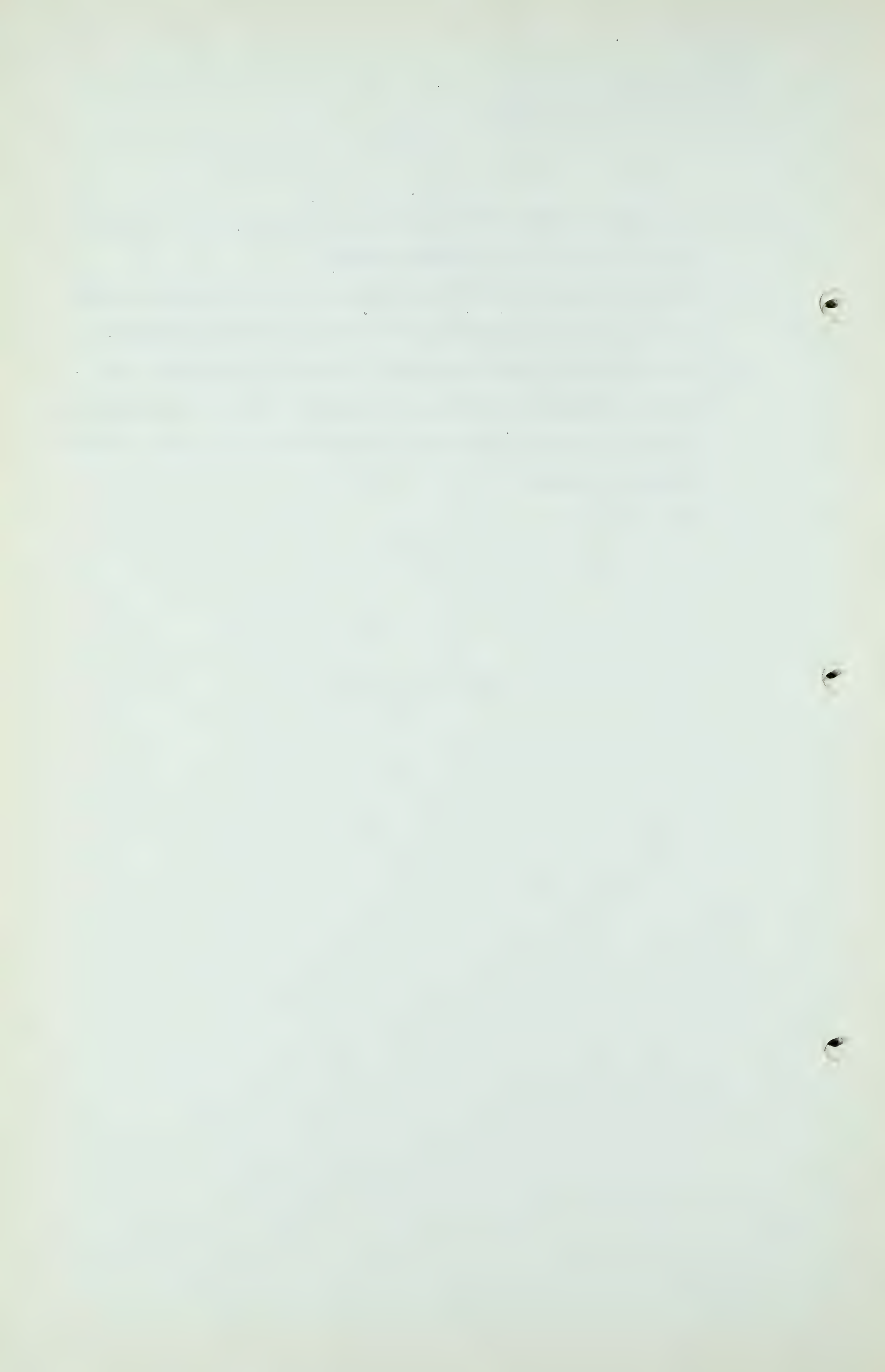
you wish to take Alberta gas out of Alberta and dedicate it to the British Columbia market?

A Our position is we dedicate this first 100 million cubic feet per day from Alberta to British Columbia markets.

Q Then let us start from there. Once more you have got that dedicated to British Columbia. Now you are going to spend 14 million dollars to bring that gas to the British Columbia market?

A No.

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Q At least?

A That 14 million is an increment part of Pacific Northwest's total costs of a couple of hundred million dollars.

Q You would not be spending, though, 14 million if you were not going to serve British Columbia market?

A You are undoubtedly off base. Yes, sir, we are spending that 14 million dollars in order to come up here and get gas out of Canada, in order to connect the Canadian reserves with Pacific Northwest's pipeline system.

Q And in order to be able to put them into British Columbia?

A Not necessarily.

Q Well now - -

A British Columbia is part of the overall Pacific Northwest market.

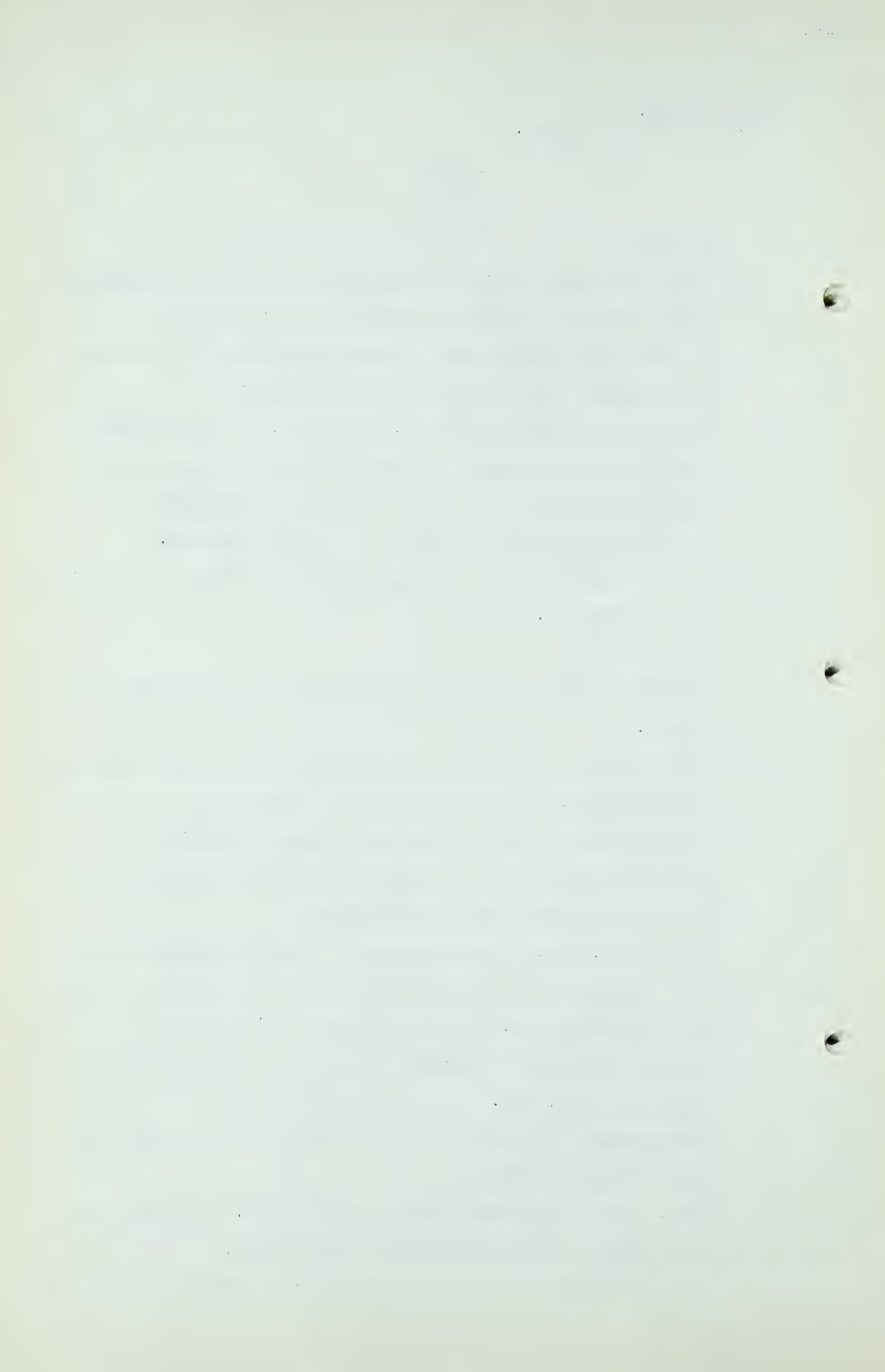
Q Now, I suggest we are getting something or at least finding out something. Is this application for Canadian gas something which you have in mind as a means of serving British Columbia or is it what you say, and increment to the service of the Pacific Northwest?

A It is both, sir. It is the means of putting Canadian gas to a Canadian market and thereby forming the policy of the Alberta Government. It becomes then an increment of Pacific Northwest's overall system, so it is both of the things you say, sir.

Q The necessity of serving British Columbia is not what you call a necessary thing?

A Well, I don't know what you are getting at. I thought we were having a straightforward meeting here.

Q If you are going to spend 14 million on a pipeline which



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is going to carry gas which is being marketed at the Pacific coast, and I do not care whether 14 million is a fleabite to you or not, you necessarily have made some kind of a survey, as you did in connection with Texas and of the Pacific Northwest. If you did make it, I want the figures.

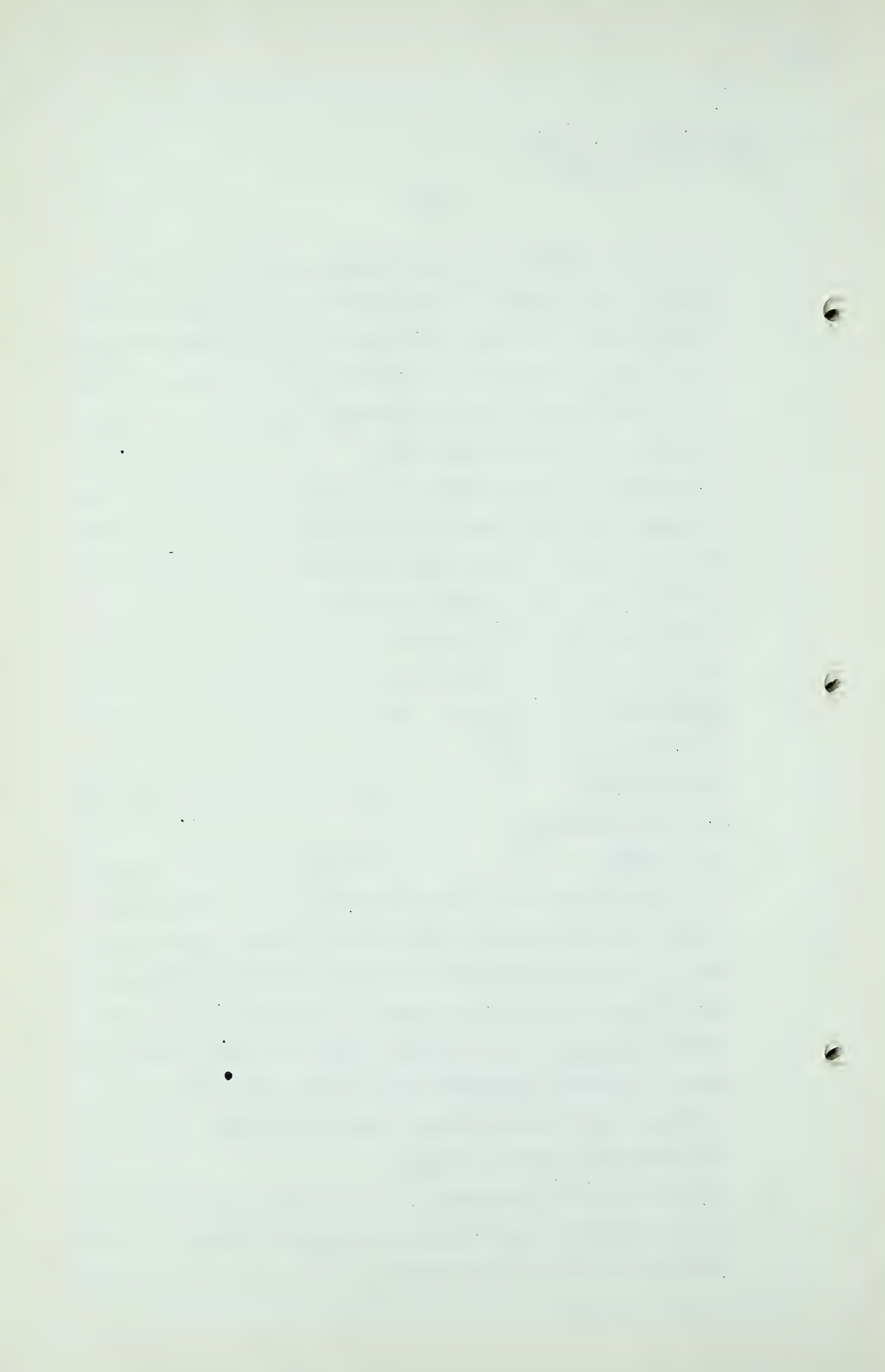
A You mean the market survey now?

Q Yes, what you could charge at the gate of the distributing company, what they should pay, how much of a load you would have and so on, and what you would have to pay for it in order to make your interest charges on the 14 million dollar pipeline. If you have it, I would like it. If you have not got it, I will stop, but I will really worry you about what I had in mind. Will you think it over and see what you can give me?

THE CHAIRMAN: Anybody else want to ask Mr. Fish any questions?

Q DR. GOVIER: I wonder if I could ask you to clarify two points that were brought out. On several occasions you mentioned that in your opinion there should be 40 to 50 years protection for the Province of Alberta, and in reply to a question asked, I believe it was by Mr. Smith, you said that you did not mean that that protection should be proven deliverable gas in the sense that those words are used by the Federal Power Commission. Do I interpret you correctly there?

A Partially, sir, I believe, and it is this, you should have proven reserves. What I mean by that, proven reserves to supply Alberta Province's requirements for 50 years but it need not be deliverable.



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Q Would you go any further than that, Mr. Fish?

A My thinking, sir, on it is this, that it can be made deliverable by drilling additional wells as required.

Q That is the point I wanted your view on. You would take the position then that the reserves should be proven today, and further, they should be capable of being made economically deliverable as the market developed, is that your position?

A Yes, that is it.

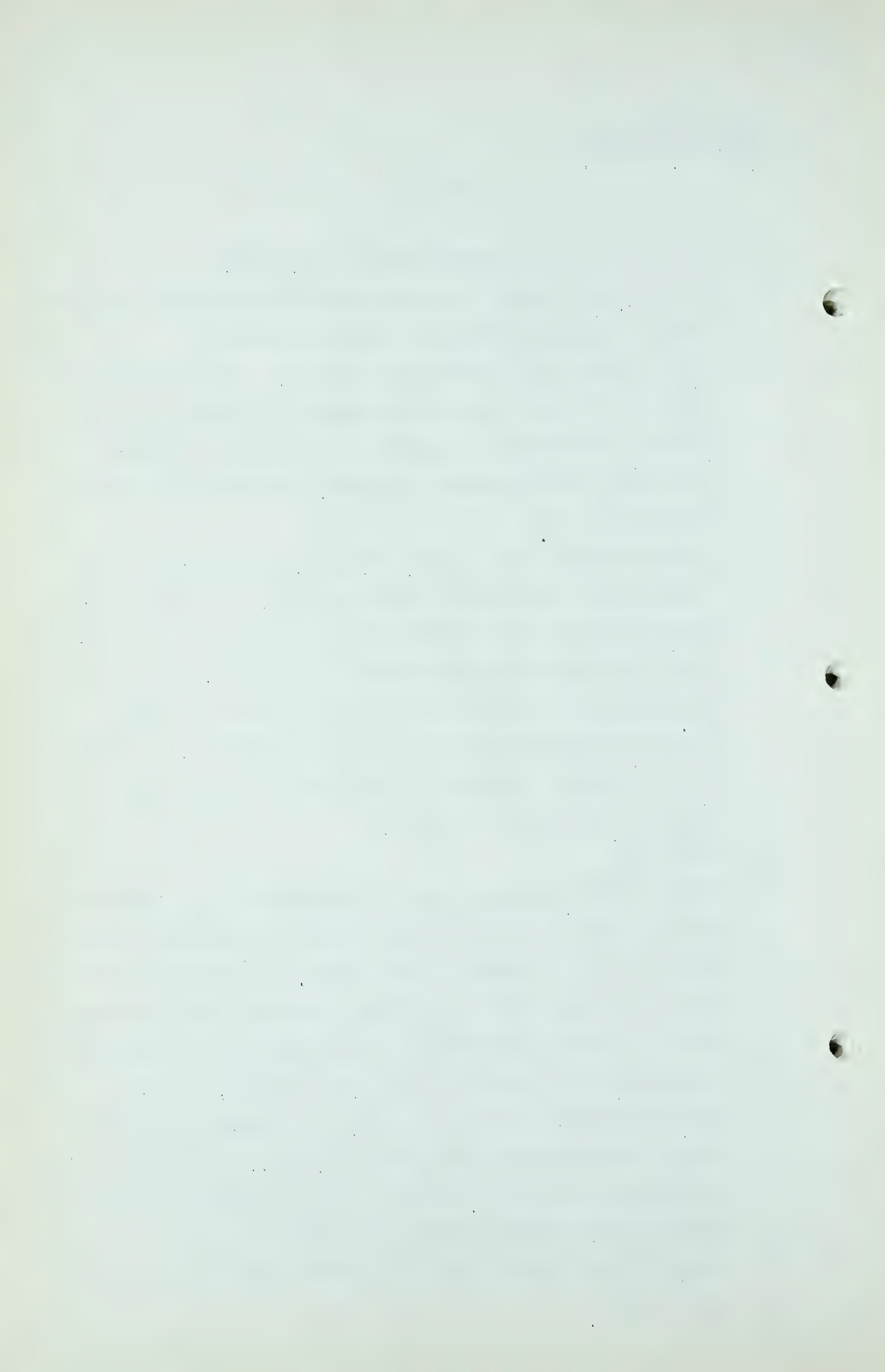
Q Another thing I want to ask, Mr. Fish, in connection with your general statement on deliverability. You recall Mr. Mahaffy earlier this morning asked you if you agreed with some views that had been expressed by both Mr. Lewis and Mr. Hawthorn on deliverability, and in answer to him you said that the deliverability idea was important, but that it could be met merely by drilling wells as they were required. Am I right there?

A Yes, sir.

Q Well now, Mr. Fish, as both an engineering and a business man I am sure you must realize a general statement of that sort is not too helpful to the Board. I wonder if you would be good enough to be a little more specific and to tell us how you thought deliverability would enter into the picture in the case of a specific field, let us say, on 10,000 acres and given depth and so on, in the light both of the legal restrictions on well spacing, etc., in the light of reasonable economics. Can you tell us something about how deliverability would fit into the picture?

A Might I use Pincher Creek as a typical example?

Q Certainly.



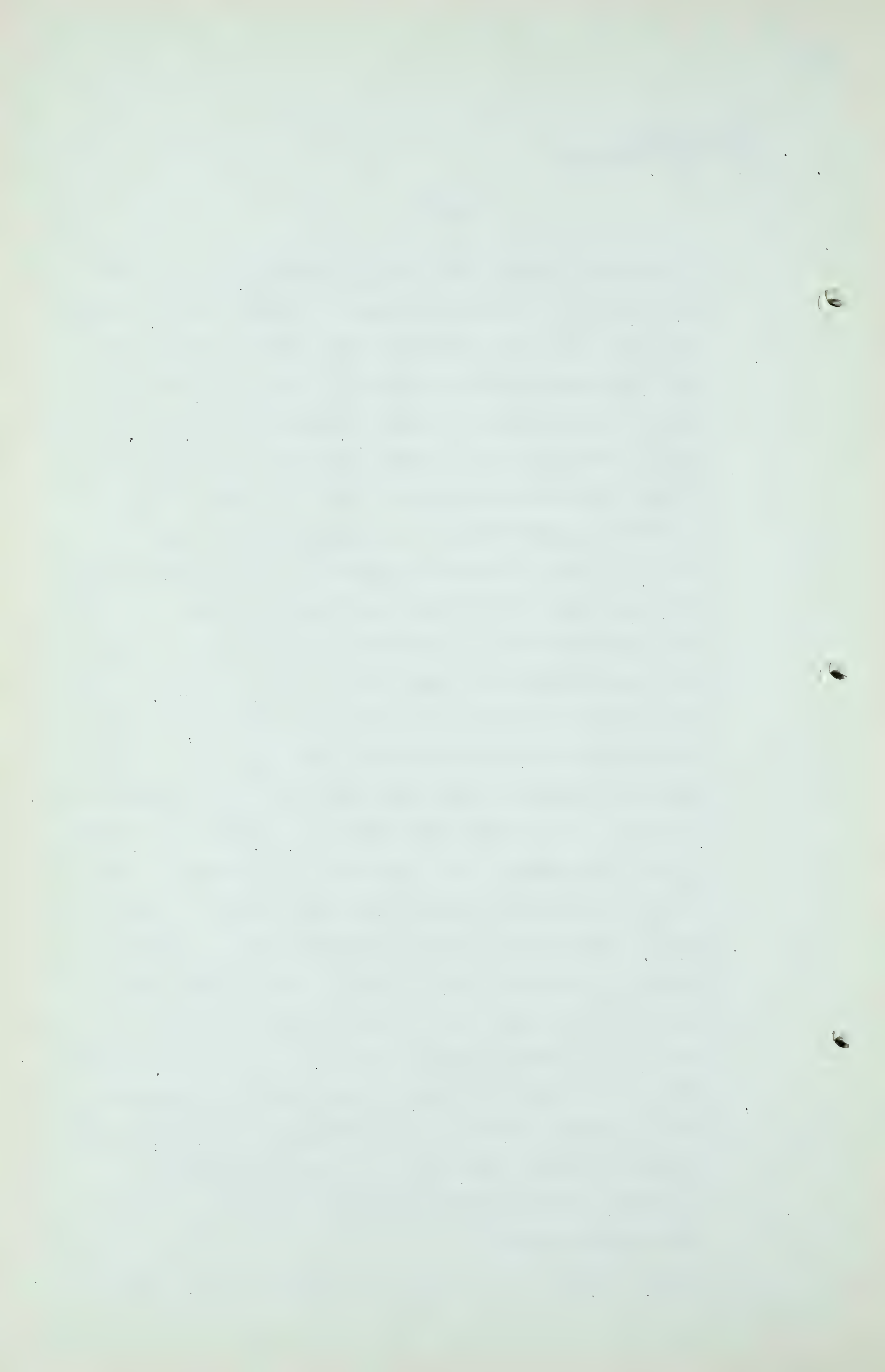
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A In as much as we are all kind of familiar with it. My thinking on it, based on the way we operate down in Texas, would be, I believe there are three wells drilled there now, the reserves are estimated by some geologists. I realize it differs but around 1 trillion, 1.7 trillion, say. Again, that can be any figure. Now then, my thinking on it is that three wells drilled in there now that it might be found that a given well - - the wells might be say 80 million a day, in Texas we allow it to 25% of the potential to be produced, which would be 20 million a day. However, most operators would consider that would hurt the well and they would perhaps cut that back to 5 or 10 million a day. If we needed 50 million a day we would drill ten wells, and I would say even though we had a local Provincial requirement for Calgary and Edmonton, and if it was estimated only 20 years, or any given years that they needed, 1.7 trillion, to use that example, that their daily requirements might only be an increment to that 20 years' supply or that 30 years' supply, and a number of wells would be drilled to deliver to them the amount of gas to meet their peak requirements. Other wells would be drilled around the structure to drain it down through the years to depletion.

Q Well, in the case of Pincher Creek, would you agree that there is some limitation on the number of wells that could be drilled there in the light of legal conservation regulations and reasonable economics, assuming a reasonable wellhead price?

A I would think, sir, it would be a matter in that particular



Ray C. Fish,
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field of economics, what they could afford to do.

Q This is what I am getting at, Mr. Fish, you have told us that as far as deliverability is concerned while it is important it can be handled merely by drilling wells. Now you tell us that there would be an economic limitation on the number of wells that can be drilled in, for example, the Pincher Creek field. Just for the sake of argument, let us suppose that should be 10 wells. What concerns me, and what concerns the entire Board, is are we going to be able to meet, as the market requirements for this area grows, the deliverability requirements of the Province plus that of export. Now, surely that means that we must take into account how many wells can be drilled in a given field. Would you agree with that?

A Oh, I agree with you on that, yes, sir, you definitely must.

Q Well, Mr. Fish, are you intending to give us any evidence along that line or will any evidence along that line be submitted by your company?

A Now, I would like to ask, what did we arrive at on that? On the 30th. We are not prepared now.

Q You will go into more detail on deliverability?

A We intend to give more detail, yes.

Q Thanks very much, Mr. Fish.

A May I be excused, sir. I think I would like to go home tomorrow.

THE CHAIRMAN:

Yes, as far as we are

concerned.

A Fine, thank you.

Statement by William C. Mainwaring.

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MR. S.B. SMITH: Just before we adjourn, sir, Mr. Mainwaring, Vice President of the British Columbia Electric Company, as I indicated in my opening statement, is here and I understand desires to supplement the material that his company has previously placed before the Board. Mr. Mainwaring is anxious, I believe, to leave town today and I think his evidence will be short. He is not my witness, he is giving evidence on behalf of the British Columbia Electric Company. If it would be convenient for Mr. Mainwaring's convenience I would like to see him given the opportunity of coming forward now, sir.

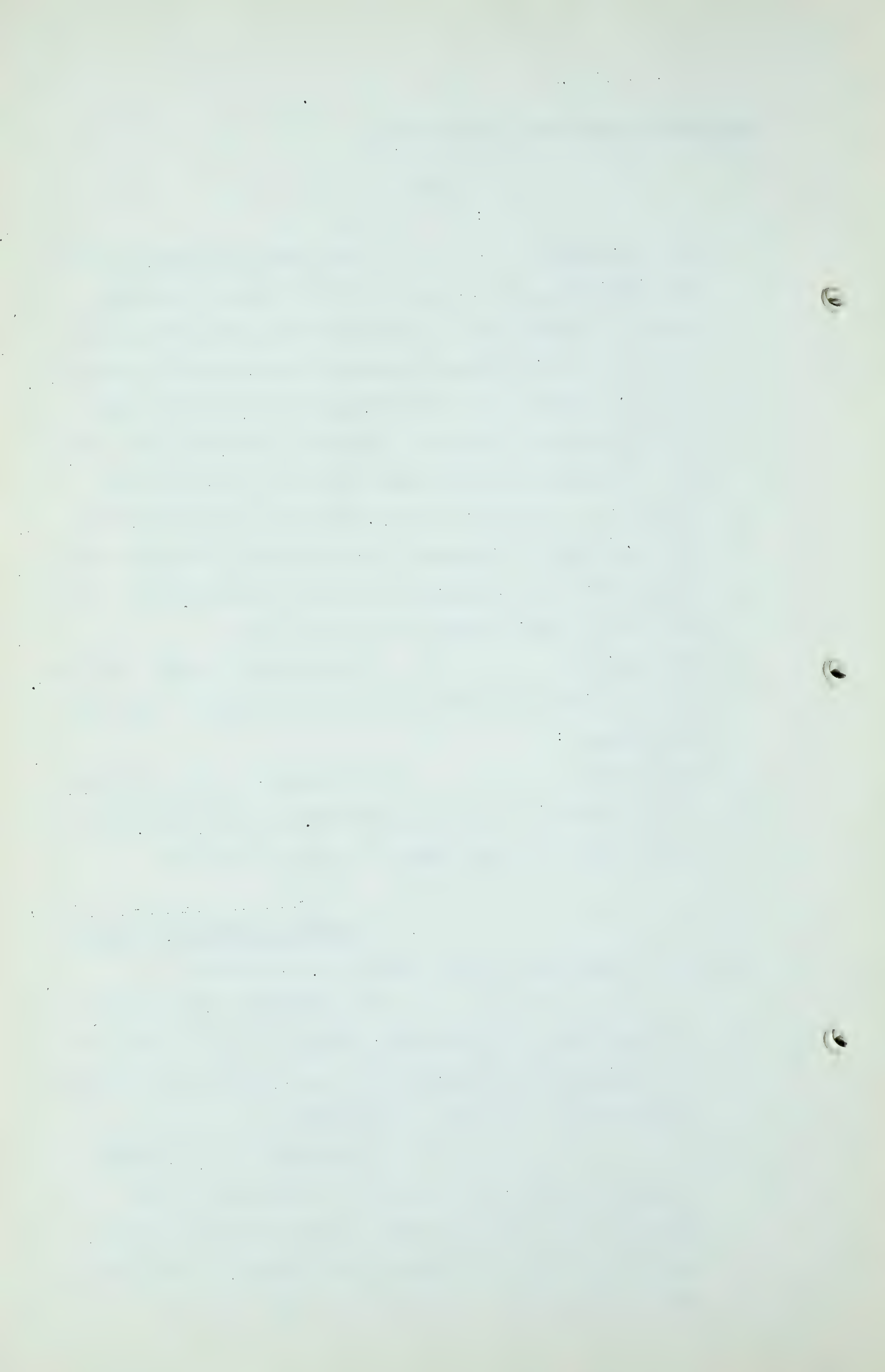
THE CHAIRMAN: If the other counsel have no objection, the Board will sit a little longer to hear Mr. Mainwaring.

MR. NOLAN: So far as we are concerned, we are anxious to meet the gentleman's convenience and I am sure it won't be very long if Mr. Smith says so.

WILLIAM CROSSLEY MAINWARING,
having been first duly sworn, testified as follows:

Mr. Chairman and Gentlemen,
I am sure that my remarks are going to be very brief, and I do appreciate the opportunity of giving them now because I am anxious to go back to Vancouver.

The policy of the British Columbia Electric Company, whom I represent, has not changed in the slightest since either myself or other representatives of my company appeared before the Board earlier this year. Our position is that we wish



Statement by William C. Mainwaring.

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to purchase natural gas and we have cooperated to the very fullest extent with all of those companies who have applications before you and who have asked us for data. I would like to make it quite clear that we do not favour the application of Prairie Pipe Lines any more than we have favoured the other applications that have been before you and which you have dealt with or you have heard. We hope, and I want to express this again, that we are going to be able to purchase Canadian gas.

In view of the fact that Prairie make reference to the market surveys in areas supplied by our company, which survey we submitted to this Board, I would like to refer briefly to our previous submission and also the submission made yesterday by Mr. Herring on behalf of Prairie. Our submission, I believe it was Exhibit No. 6, it is dated January 1950, was submitted by our company on behalf of Northwest Natural Gas Company and Alberta Natural Gas Grid. Table 5 in that submission of ours gave 1, 2, 3, 4 and 5 year estimates. In the submission made yesterday by Mr. Herring on page 8, I am not sure of the number that was assigned to it, he quotes our figures in Vancouver for Domestic, Commercial and Industrial firm exactly the same as we submitted in our market survey, but, as he explained to the Board, when he came to Industrial interruptible we for the first year estimated it was 326 million cubic feet. His estimates were increased by 1 billion feet annually. We questioned that and Mr. Herring has submitted to me letters from large industrial consumers in the areas that we serve who

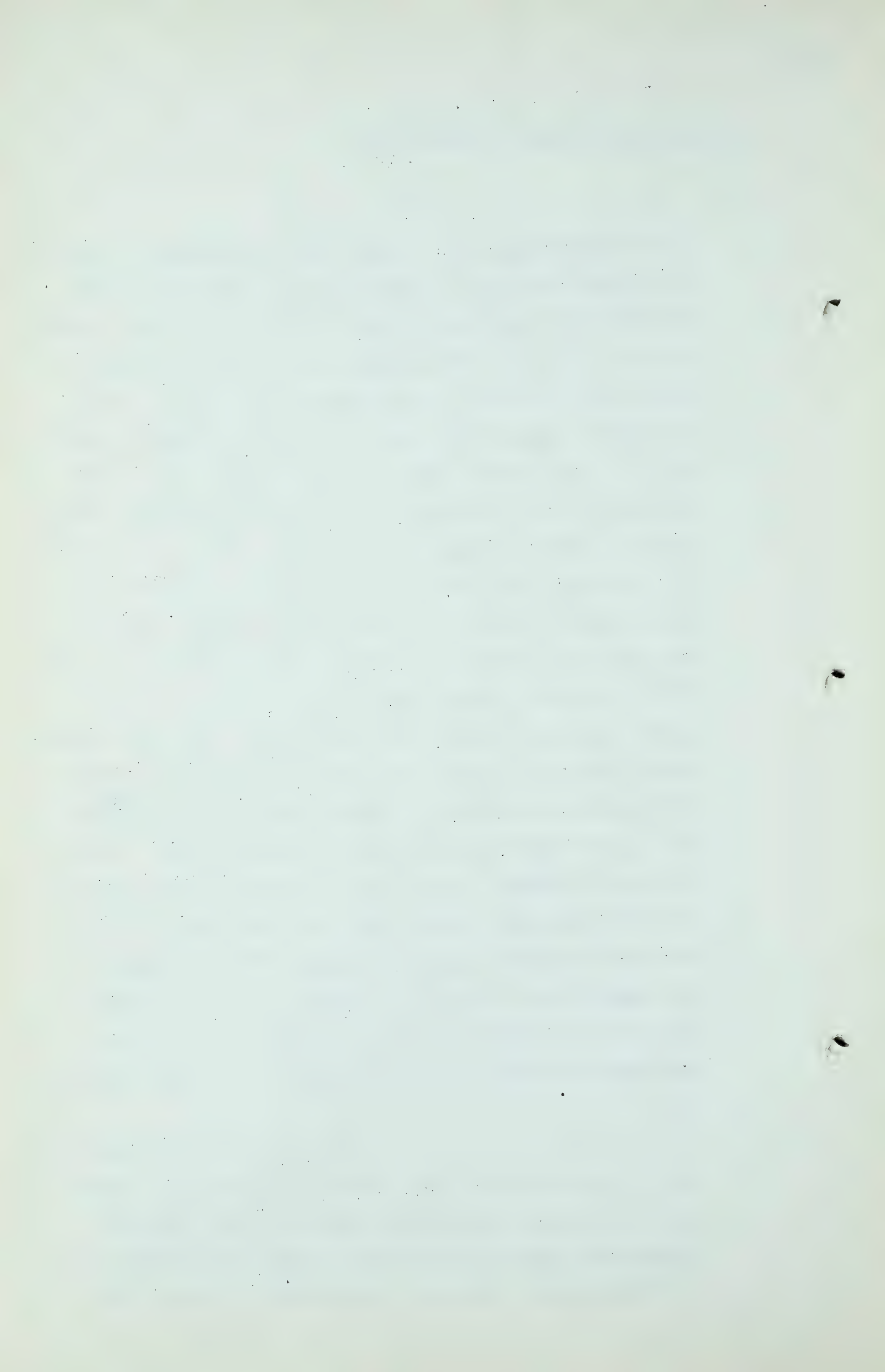


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at the time we made our surveys were not prepared to state just exactly how much interruptible gas they would take, but they have indicated to him in the letters he has shown me that they would take amounts that would justify him making this increase in our figure, so it is not my intention to quarrel with it. We can not say that we agree with it or we can not agree with it because the letters that he has indicated that there is that industrial interruptible market available. When we come to our later figures for the next four years we have nothing to compare with Mr. Herring's figures, as submitted by Prairie, because he gives what he calls a potential figure and refers to it in his brief as a figure that will be reached at some period during a 20-year contract, possibly half way through, which would be 10 years. We made a submission at the end of 5 years and we came to a figure from 7,351,000 MCF and his figures are 22,363,680 MCF as being potential. Now, we have no figures, we have made no studies, that indicate what that potential market might be. And again, I must say that we can not agree or disagree with him because our figures were confined exclusively to what we figure the market requirements would be at the end of 5 years, and what they might be at some time in the future I can not say.

I think that is all I want to say in connection with the Vancouver figures, but I would like to deal just briefly with Victoria. We received a request from Prairie Pipe Lines to give them estimates on the Victoria and Vancouver Island market. We did not



Statement by William C. Mainwaring.
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previously submit any figures for Vancouver Island because at the time of the previous Hearings we had not any idea whether it was feasible to build a line to that area and we had to make our figures up very hurriedly, and they were given to me on Friday afternoon last. I have checked those figures that I have with the figures submitted by Prairie Pipe Lines, which they have submitted in Mr. Herring's brief of yesterday, and their figures and ours are sufficiently close that we are prepared to accept the figures they submitted yesterday, both for the first year and for the potential load as being reasonably accurate. We are prepared to accept them as though we were filing them ourselves. I think that is all I have to say about these figures.

I do appreciate the opportunity of again coming and expressing our position and saying that we wish all of these applicants well and we hope in the near future we are going to get some gas from Alberta.

THE CHAIRMAN:
Mainwaring?

Anyone want to question Mr.

CROSS-EXAMINATION BY MR. S.B. SMITH:

Q I have, I think, one or two questions, Mr. Mainwaring. You mentioned a difference, perhaps it is not really a difference, I do not know, between Mr. Herring's estimate of potential consumption of those various classes of consumers in Vancouver, and your estimate of consumption as between the different classes at the end of 5 years,

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which I think according to Exhibit 6 was 1956?

A Correct.

Q Would you, in your opinion, likely have reached your potential market for natural gas in Vancouver at the end of 5 years?

A Nowhere near.

Q Nowhere near?

A No.

Q Would it be possible for you to estimate at all what portion of your potential market you would likely have reached by the end of the first 5 years?

A That is a rather difficult question to estimate.

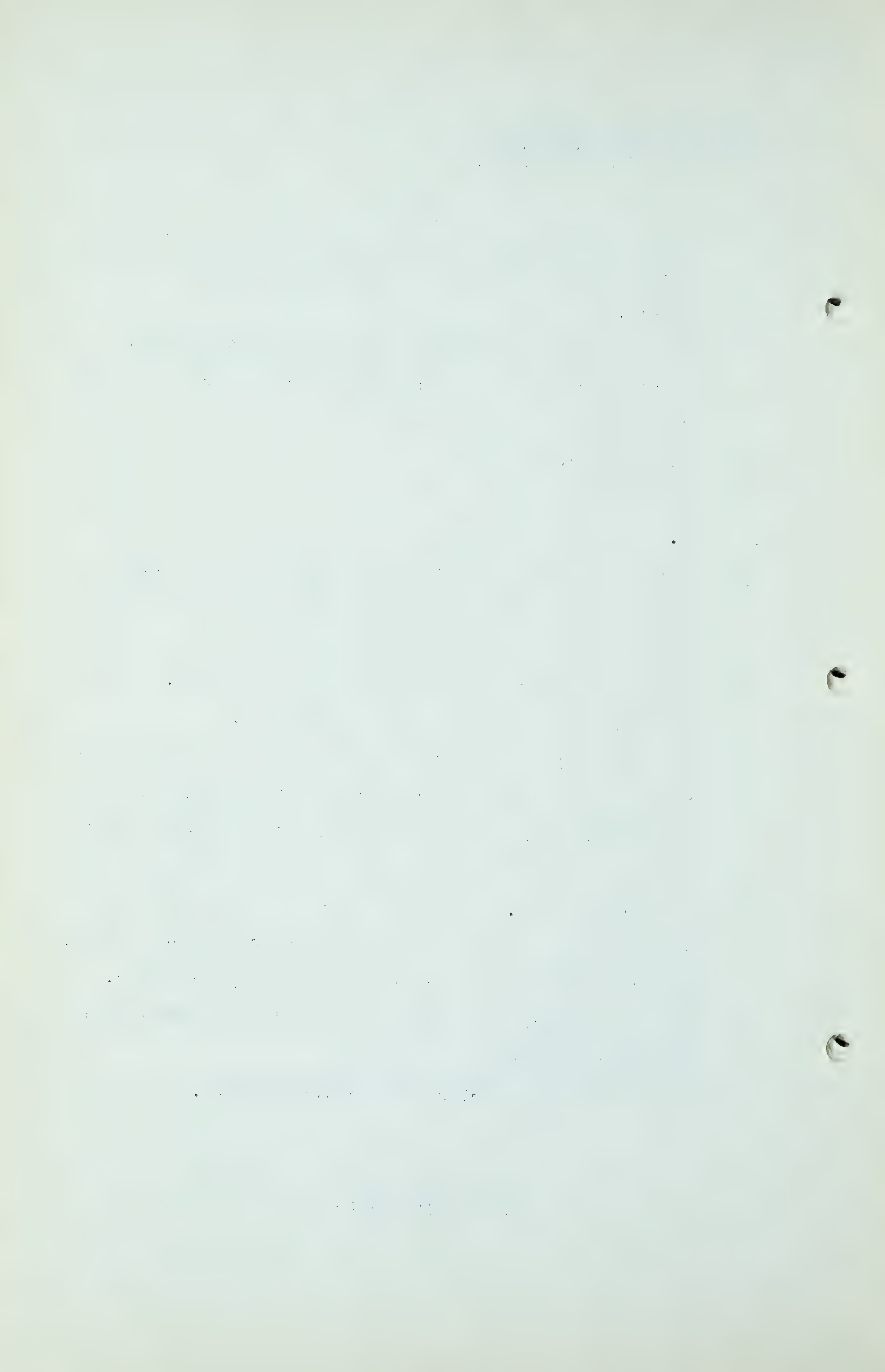
Q I realize it is a very difficult question.

A The first 5 years we estimate are going to be the difficult years in changing from manufactured to natural gas and a great deal of plans for future load building would be made during that 5-year period that we would not get the benefit from. I would say that the best estimate I could give you would be between 35 and 40 per cent of our potential market being reached in this 5-year period.

Q That is somewhat more than a third but not a great deal more than a third?

A I think that is as close as I could estimate.

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Q I see. Of course, these are all matters of opinion and based upon many variables, I understand that?

A Yes.

Q Does it appear to you then that there is any great inconsistency between Mr. Herring's estimates of the consumption, the potential consumption in Victoria as between these different classes of consumers, Vancouver, I mean, and your estimate of consumption as between the different classes at the end of five years? Do you think they are reasonably consistent?

A Well, we would certainly hope to reach his potential figures during the life of the contract.

Q So that you would not suggest they are out?

A That is why I say we are not disagreeing with his figures.

Q His potential is about 22 billion, isn't it?

A 22,363,680,000.

Q And your estimate for consumption at the end of the fifth year is 7 million MCF?

A Yes.

Q That is just approximately, that is slightly less than 35%, it is just about 35%?

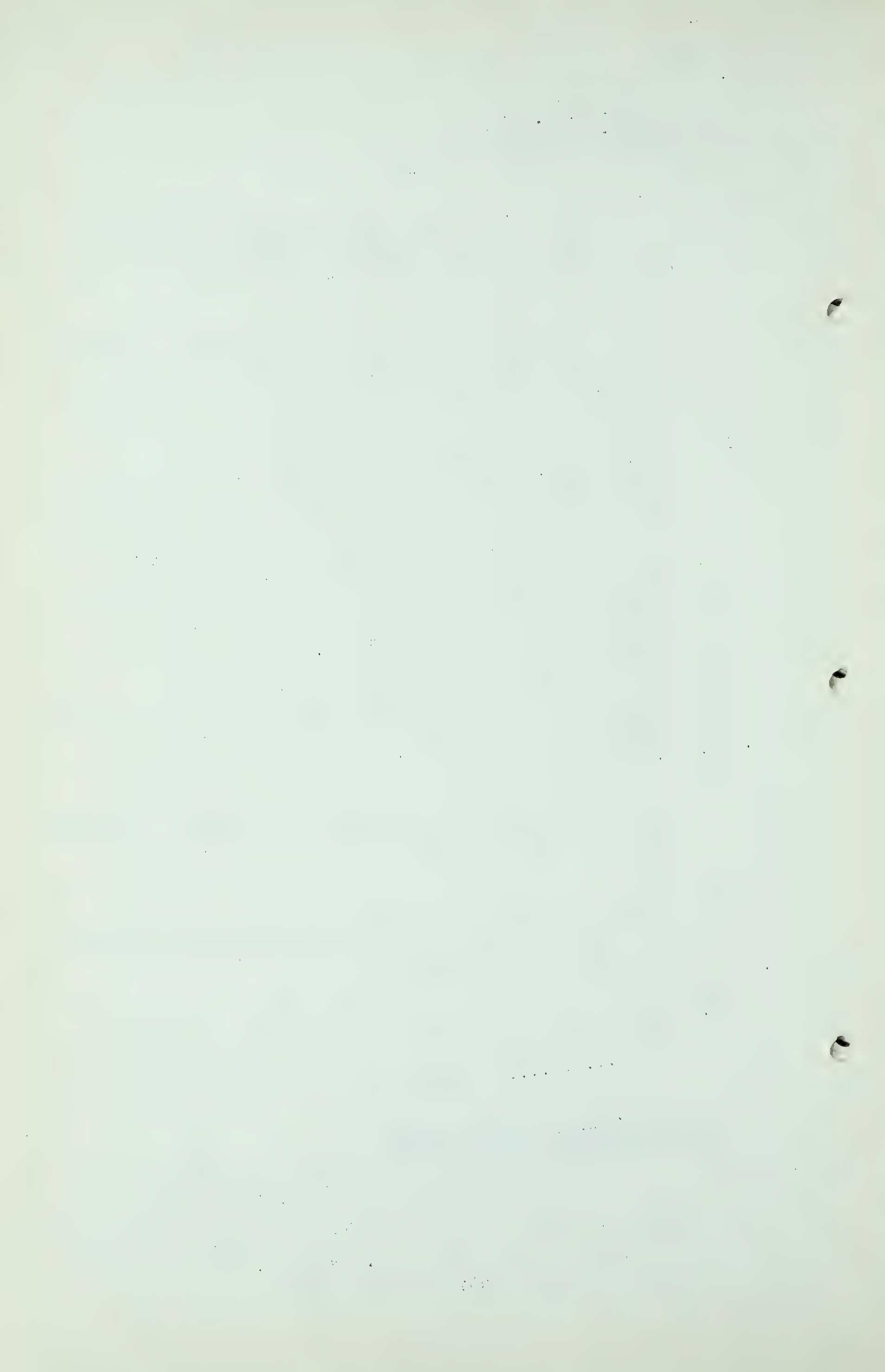
A Yes.

Q Thank you.

.....

CROSS-EXAMINATION BY MR. NOLAN:

Q I would just like to ask you one or two questions, if I may. I want to ask you with regard to Victoria, and your estimate of the market on Vancouver Island. What main industries did you include in that?



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A On Vancouver Island the British Columbia Cement Company have a large cement plant that is a good outlet for interruptible gas. And there is our own company....

Q How far away is that, Mr. Mainwaring, from Victoria?

A Approximately 20 miles from the City of Victoria.

Q All right?

A Then we have our own company, we have a very large steam plant at Brentwood, approximately 15 miles from the City of Victoria, where we used oil and can also use powdered coal. We believe that we could use a great deal of gas that would be classed as interruptible in that plant in the summer months. The Canadian Industries, as you possibly know, have a very large plant on James Island for the manufacture of explosives.

Q Where is James Island, Mr. Mainwaring?

A It is located off the coast of Vancouver Island near Sidney, a distance, I would say, of approximately two miles offshore.

Q And where is it in relation to the proposed pipe line?

A Well, that we would take across the British Columbia Cement, and our own Brentwood plant, and this Canadian Industries plant would fit into it, they would all fit in together.

Q Well, this is on an island you are talking about now?

A Yes, but it is just a case of running another short pipe line from Vancouver Island over to James Island. I have not seen the engineering economics of it, but it is considered feasible.

Q How long is it?

A About two miles offshore from Vancouver Island.

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Q Yes, but the other pipe line is not actually on the shore, you have got to connect them all up, haven't you?

A Yes, but I thought I made that clear, Mr. Nolan, by the running of the pipe line from Victoria to the British Columbia Cement plant and to our electric plant at Brentwood, the steam plant.

Q Yes?

A That could be extended to feed this plant at James Island.

Q How far would the extension be, how long?

A Oh, I would say a matter of 5 miles.

Q On the land?

A No, I would think about, something like, of course, not having a map I am guessing at it, I would say not more than three or four miles on land and two miles by water.

Q What is your next industry?

A Those are the three large ones. I haven't a detailed list of the industries that were studied by our research division in compiling these figures, but there are quite a large number of smaller industries in the area between Victoria and Nanaimo we also included.

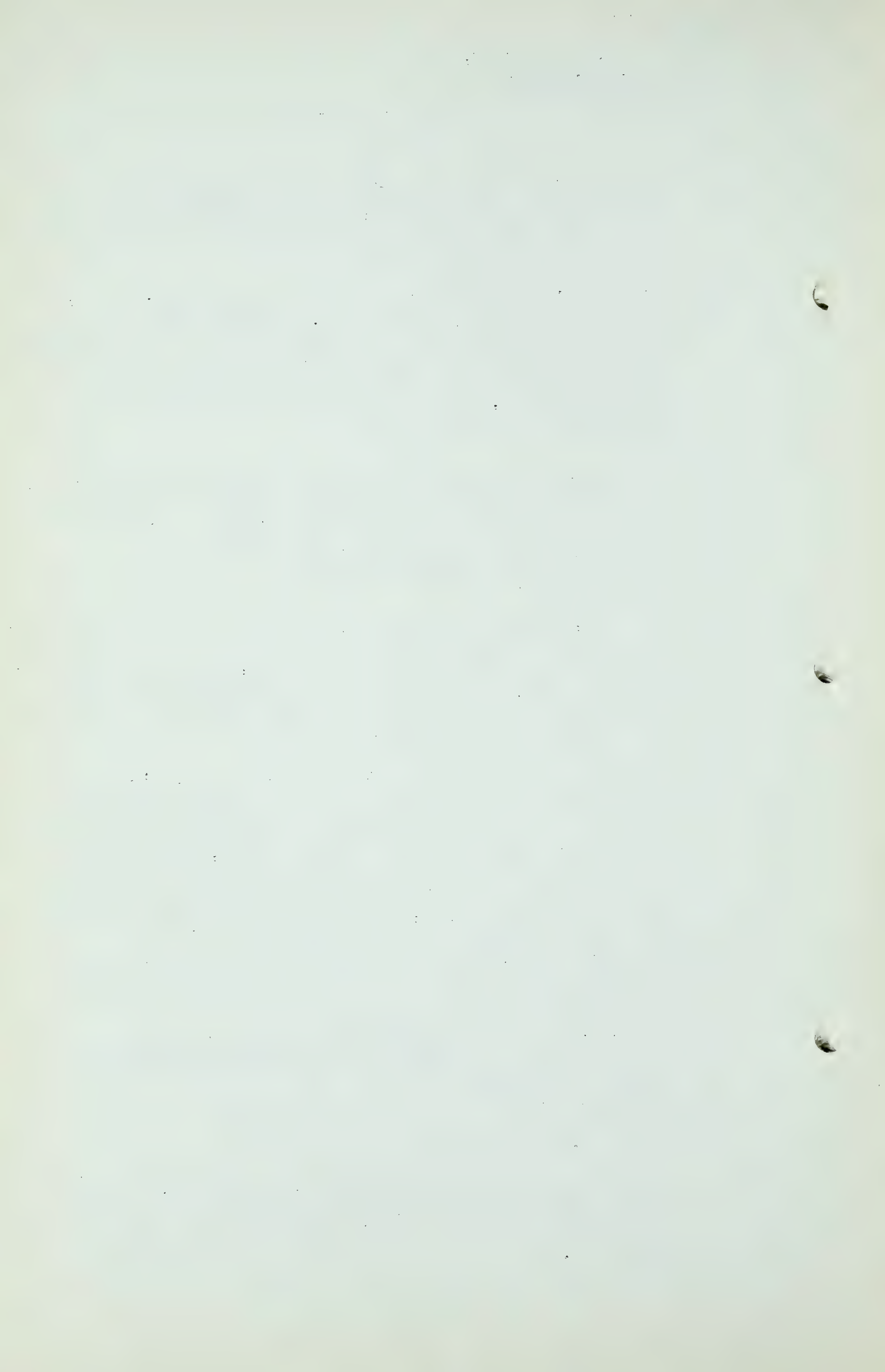
Q All right, did you include that new industry that has just been created near Nanaimo?

A No, we have not included in our estimate anything with respect to Harmac.

Q Harmac?

A Yes.

Q That is the new MacMillan Sulphide plant, six or seven miles south of Nanaimo, and we included no estimate of that.



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Q Now, Mr. Mainwaring, you are in the business of selling electricity?

A That is one of our businesses.

Q That is one of your businesses?

A Yes.

Q That is the main part of your business?

A That is right.

Q And you are interested in the purchase of exportable natural gas in Alberta?

A Yes.

Q How much are you prepared to pay for that gas?

A Do you mean delivered at Vancouver?

Q Yes?

A Well, I believe we went into that very extensively on the occasion of your hearings, Mr. Nolan, and we explained to the Board the estimates that we had made, and Mr. Fenerty cross-examined me at great length and Mr. Davidson on this particular point. I have the reference here, if you would like to see it.

Q No, I just want the figure?

A I believe that our estimates were based on paying from 30 to 35 cents for gas delivered at Vancouver.

Q Have you discussed the question of price and what you can afford to pay with the Pacific Northwest people?

A They know that we are.

Q Have you discussed it?

A We have had discussions with them, yes.

Q On the question of price?

A Yes.

Q And what were the discussions and who were they with?

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A The discussions were with Mr. Fish, and we told him that we would have to have gas at a price around 30 cents a thousand.

Q That is, in order to compete with the other fuels that are there?

A That is right.

Q What fuel do you use now in Vancouver?

A Do you mean what fuel do the consumers use?

Q What do you use to create your electricity, what do you burn?

A We generate our electricity on the mainland from water power.

Q You generate your electricity from water power?

A Yes.

Q And, as a matter of fact, the gas would replace that?

A Oh, no.

Q Well, then, what are you going to use the gas for?

You are going to distribute it to the people?

A We are selling it now.

Q Through your distribution system, I understand?

A Yes.

Q And in order to do that you will have to compete with your other fuels present in Vancouver?

A There is practically no competition between electricity and the gas for the uses that we have compiled in the submission that we have made to this Commission. We have allowed for the competition, if any, that we would have to face.

Q What are the competing fuels out there?

A Oil chiefly.

Q Yes? That is the fuel oil from California?

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A Correct.

Q Yes?

A We have given this information ere before. I am wondering why you are going over it all again. We have given this often before. It is fuel oil from California, coal fuel from British Columbia, and wood fuel, of course, from within the Province of British Columbia.

Q And just to make it abundantly clear, and at the risk of boring you, you have got to have the natural gas laid down in Vancouver at from 30 to 35 cents in order to compete with those other fuels?

A That was the price that we estimated based on the fuel, on the price of oil delivered at Vancouver at the time we made the submissions.

Q Well, could you sell the gas that you estimate you will be able to sell if you pay 35 cents for it?

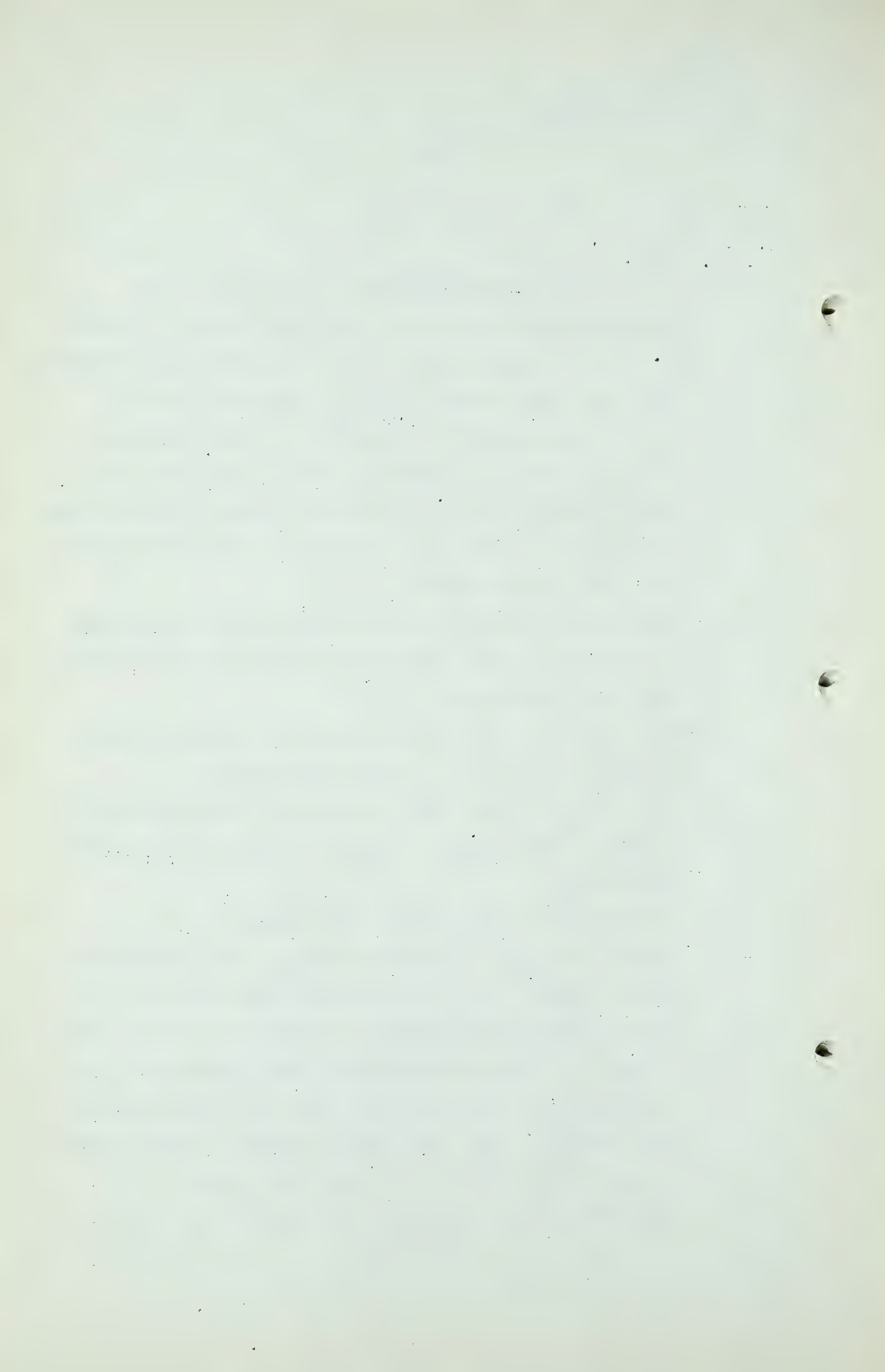
A Do you mind me going back and reading the exact answers we gave to that question which was asked previously in the hearing?

Q I don't want to delay these proceedings?

A Neither do I, but it is all in here. I am wondering why you are asking. It would seriously interfere with it, and we explained that before. If we had to pay 35 cents it would not affect our domestic load a great deal but at 35 cents it would seriously start to interfere with our industrial load, and I believe that is exactly what you will find in Volume 5 of May 31st, 1950.

Q Thank you, that is exactly what I want.

.....



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CROSS-EXAMINATION BY MR. McDONALD:

Q I just have one short question, sir. You heard Mr. Fish deal with the matter of the pipe line to Victoria?

A Yes, Mr. McDonald.

Q He said it was going to cost a little bit more than possibly service to some other points?

A Yes.

Q Now, just how much more can you afford to pay over and above this 30 cents or 35 cents in Victoria than you can in Vancouver and still sell the gas that you are talking about, and that you have corroborated here today as being a proper estimate? Well, could you pay 20 cents more?

A Just give me a minute, Mr. McDonald, and I will give it to you instead of guessing at it. I will give you as close an estimate as I can.

Q All right.

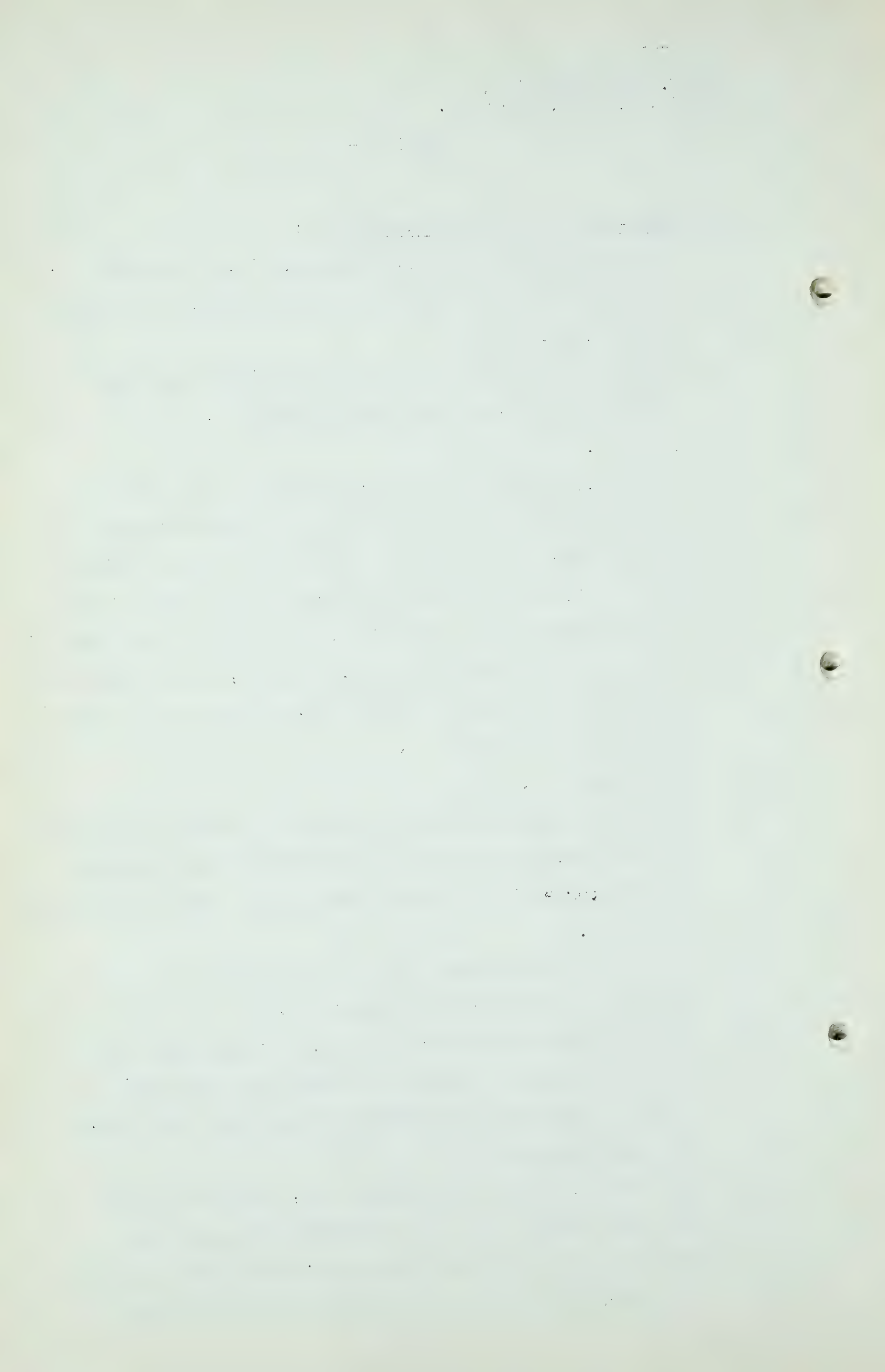
A I believe, knowing something about fuel costs on Vancouver Island, that we could pay an additional 20 and possibly 25 ~~per~~ cent more for the gas than we are paying on the mainland.

Q Yes? On 30 cents that would be 37½ cents?

A I would say from 35 to 37 cents.

Q Yes? It just occurred to me, I do not know much about the cost of fuel on Vancouver Island, but isn't Vancouver Island where the Ladysmith coal mines are, where the coal supply is?

A Yes, but Vancouver Island coal, and I am sure you will know this because you have made some very exhaustive studies, that Vancouver Island coal is the most expensive coal to mine that we have in either British Columbia or



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Alberta?

Q Yes?

A And Vancouver Island coal that is being delivered to consumers within just a very short distance of the mines runs from \$12.00 to \$15.00 a ton. The fuel costs on Vancouver Island now are high.

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Q And then I presume the oil, the fuel oil, will be very much about the same price as Vancouver?

A No, it is a little higher.

Q There is just one thing about this Victoria situation. Did not your company write to the Westcoast Transmission Company Limited, and I think also to the Northwest Natural Gas or some company with reference to serving Vancouver Island with gas?

A Yes.

Q Can you tell me if that is a letter written by Mr. Robertson?

A Yes, sir, that is correct.

Q Will you tell me if that is a reply the Westcoast Transmission made, or a copy of it? You can read it.

A Yes, that is correct.

Q I would ask them to be filed. I do not intend to read them.

MR. S. B. SMITH: May I see them for a moment?

A I have a letter, if these are going to be filed, a reply that I wrote to Mr. McMahon yesterday and addressed to his office here. I think that should also be filed with these letters.

Q MR. McDONALD: I do not know anything about that.

A There is that letter that should be filed.

Q Have you a copy of it with you?

A I have not it with me, no.

Q The sum and substance of it is that these companies were prepared, or the Westcoast Transmission Company was

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prepared to serve Vancouver Island if it is economically feasible?

A I think so. I do not see why they should not.

MR. S. B. SMITH: I have no objection to the introduction of these letters. Are you not going to read them?

A I think they should be read.

MR. McDONALD: I do not want to delay the hearing. However, I will now read them.

" BRITISH COLUMBIA ELECTRIC RAILWAY COMPANY, LIMITED.
Legal Division.

Vancouver, B.C.
17th August, 1950.
Our File 144/49

Frank M. McMahon, Esq.,
Westcoast Transmission Company Limited,
304 Toronto General Trusts Building,
Calgary, Alberta.

Dear Sir: Re Natural Gas

One of the companies which would build a pipe line to serve the Pacific Northwest with natural gas has suggested that, if it builds the line, it will run a branch line from a point between Everett and the border to Vancouver Island, where this Company would distribute the gas. The purpose of this letter is to inquire whether your company, if it builds a line to serve the Pacific Northwest, will likewise be prepared to deliver gas to us at some convenient point on Vancouver Island.

Yours truly,

ABR:EVM

Hon. J. W. deB. Farris, K.C.

"A. Bruce Robertson"
A. Bruce Robertson,
Vice-President and
General Solicitor. "



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LETTER NOW MARKED
EXHIBIT 14.

"Westcoast Transmission Company Limited

August 22, 1950.

C O P Y

Mr. A. Bruce Robertson,
Vice President,
British Columbia Electric Railway Company Limited,
VANCOUVER, British Columbia.

Dear Sir:

I have your letter of the 17th instant in which you inquire whether this Company, if it builds a pipeline to serve the Pacific north west, will be prepared to deliver gas to the B.C. Electric Company at some convenient point on Vancouver Island. .

This Company has not surveyed the market for gas on Vancouver Island and only very preliminary consideration has been given to the Engineering problems in respect to delivery of gas to this Island.

Evidently the parties to which you refer in your letter have made detailed engineering studies of providing a service to Vancouver Island and have found the project practical and feasible both from market and engineering standpoints. If this is the case, the Westcoast Company will be prepared to build and operate such a pipeline and provide the service referred to above.

Yours very truly,

WESTCOAST TRANSMISSION COMPANY LIMITED,

/MF

Frank M. McMahon, President."

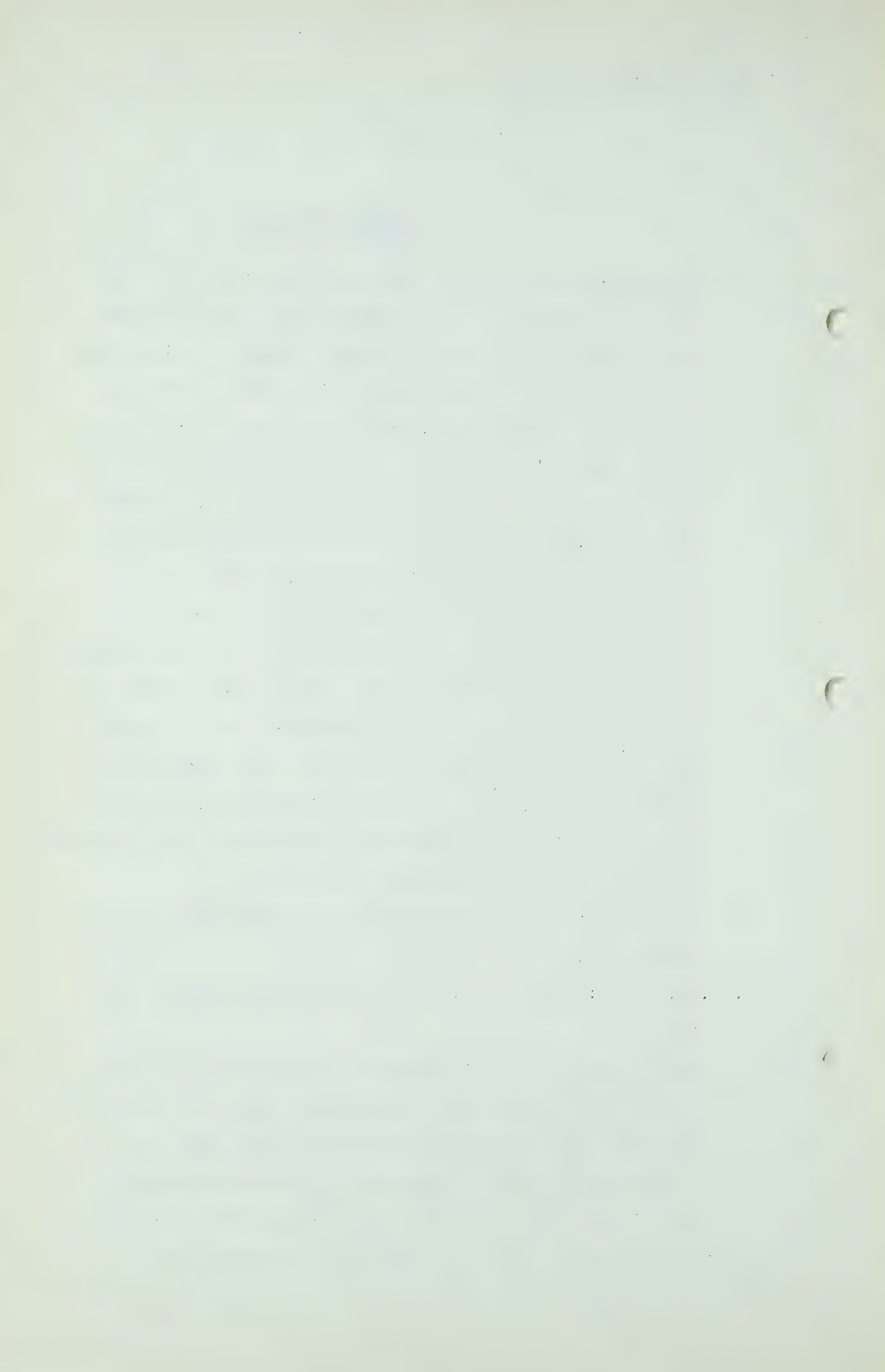


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LETTER NOW MARKED
EXHIBIT 15.

- Q Mr. Mainwaring, there is just one other question I was going to ask you on the assumption that the delivered cost of gas in Vancouver is equal, whether the pipe line is built through British Columbia or built through the States of Washington and Idaho, which would be the most advantageous to the Province of British Columbia and the people therein? As between building the line through British Columbia, through the Yellowhead Pass and down to Vancouver, or through the United States?
- A Your question brings in something that we have heard a great deal about this morning and that is one of economics. To start with, any distributing company such as our company wants to see a line built where we know it can be kept in service 365 days in the year. And that is our primary consideration, one of dependability of service. Second, is the cost of the line, because that will determine the price we are going to pay for the gas.
- Q I am asking you to assume the price is the same through either direction?
- MR. S. B. SMITH: Would you let him finish his answer?
- A If it were possible to build an all-Canadian line then I will answer your question this way, that if it were possible to build an all-Canadian line and that our company was satisfied would meet the two requirements before mentioned, we would favor the all-Canadian line. But we would have to be convinced that these two



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conditions were going to be met before we would agree.

Q I am assuming the service would be the same and I am assuming the cost would be the same, which would be the more advantageous for the Province of British Columbia?

MR. S. B. SMITH: Why not assume that would be the more advantageous and be done with it?

A It would be more advantageous to British Columbia if an all-Canadian line were built, if all other things were equal. But it is very difficult to believe that they would be equal from the material that has been submitted to this Board.

Q You know something about the petroleum and natural gas industry in British Columbia and Alberta and would you agree with me if a line is not built through Northern British Columbia or Central British Columbia, south to Vancouver, that it will be of very little use in developing the natural gas resources of the Province of British Columbia in the northern area?

A From my knowledge at the present time, Mr. McDonald, there is nothing that has yet been even proven or semi-proven in British Columbia to justify the building at this time of a line through British Columbia because of any gas that we might find in British Columbia.

(At this stage the Hearing was adjourned until 9.30 A.M.
12th October, 1950.)

